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# THE AMERICAN

## ELEVATOR AND

# GRAIN TRADE

Printed in U. S. A.

Entered as second-class matter June 26, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879

Established 1882

PUBLISHED BY  
Mitchell Brothers Publishing Co.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

One Dollar Per Annum  
SINGLE COPIES, 15 CENTS

VOL. XLIX

431 South Dearborn Street, Chicago, Ill., August 15, 1930

NO. 2

### Of Course

We want your business but we want it on a basis that will pay you as well as ourselves. We want it because we have proper facilities for handling it.

Don't be satisfied with slow returns or poor service; send your shipments to

### McKenna & Strasser GRAIN

1152 Board of Trade Building  
CHICAGO

GRAIN DRIERS  
FEED MIXERS  
FEEDERS  
COOKERS  
STEAM COILS  
MOLASSES-  
HEATERS



### ELLIS DRIER WORKS

Division of Tolhurst Corporation

822 W. Washington Blvd.,

Chicago, Ill.

ROTARY DRIERS  
TRUCK DRIERS  
STERILIZERS  
FANS  
STEAM TRAPS  
OAT BLEACHERS  
SPECIAL DRIERS

### When You Want QUALITY Dried Buttermilk Dry Skim Milk

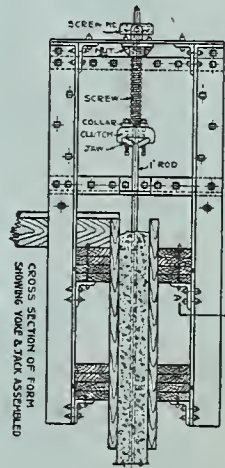
For Animal and Poultry Feed  
Wire, write or phone us for  
Fresh Product Direct from 60 Plants  
Packed in 100-lb. Paper Lined Sax  
Prompt or Deferred Shipments

FEED FORMULAS  
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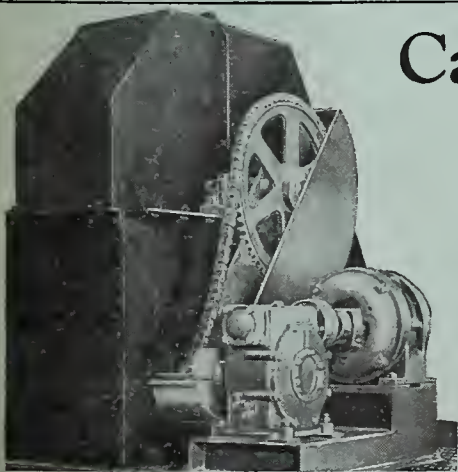
110 N. Franklin St., Chicago, Ill.  
Phone Randolph 1547

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Grain  
Elevators,  
Silo Coal Pit  
Construction  
Blue Prints  
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NELSON MACHINE CO.  
WAUKEGAN, ILLINOIS



## Caldwell Standardized Drives for Elevators and Conveyors

The Caldwell line of standardized Drives for elevators and conveyors—carried in stock for quick shipment—

covers the range of horse-powers from 1 to 20. Particulars in Books Nos. 1086 and 1191. Sent on request.

H. W. CALDWELL & SON CO.

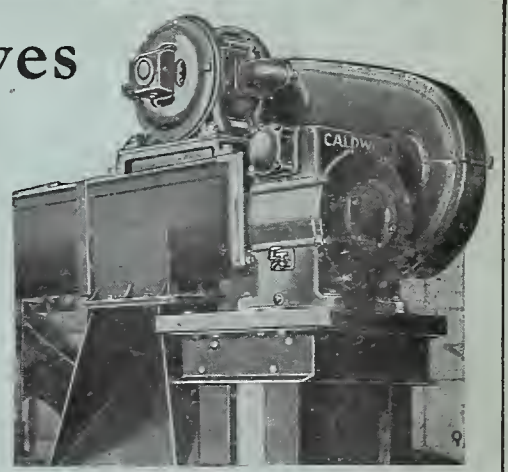
DIVISION, LINK-BELT COMPANY

CHICAGO, 2410 West 18th Street

New York: 2676 Woolworth Bldg.

Dallas, Texas: 1101 Mercantile Bank Bldg.

Offices in Principal Cities



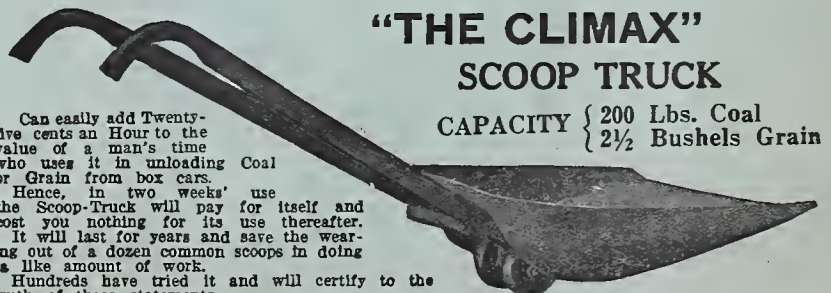
## Reliance Construction Company

### Furnish Plans, Estimates and Build COUNTRY GRAIN ELEVATORS

Our long experience as a builder of elevators insures you an up-to-date house. Write today.

Board of Trade Building,

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### "THE CLIMAX" SCOOP TRUCK

CAPACITY { 200 Lbs. Coal  
2 1/2 Bushels Grain

Can easily add Twenty-five cents an Hour to the value of a man's time who uses it in unloading Coal or Grain from box cars.

Hence, in two weeks' use the Scoop-Truck will pay for itself and cost you nothing for its use thereafter.

It will last for years and save the wearing out of a dozen common scoops in doing a like amount of work.

Hundreds have tried it and will certify to the truth of these statements. Why not order now, and let the Scoop-Truck be giving itself to you?

Patented July 30, 1907

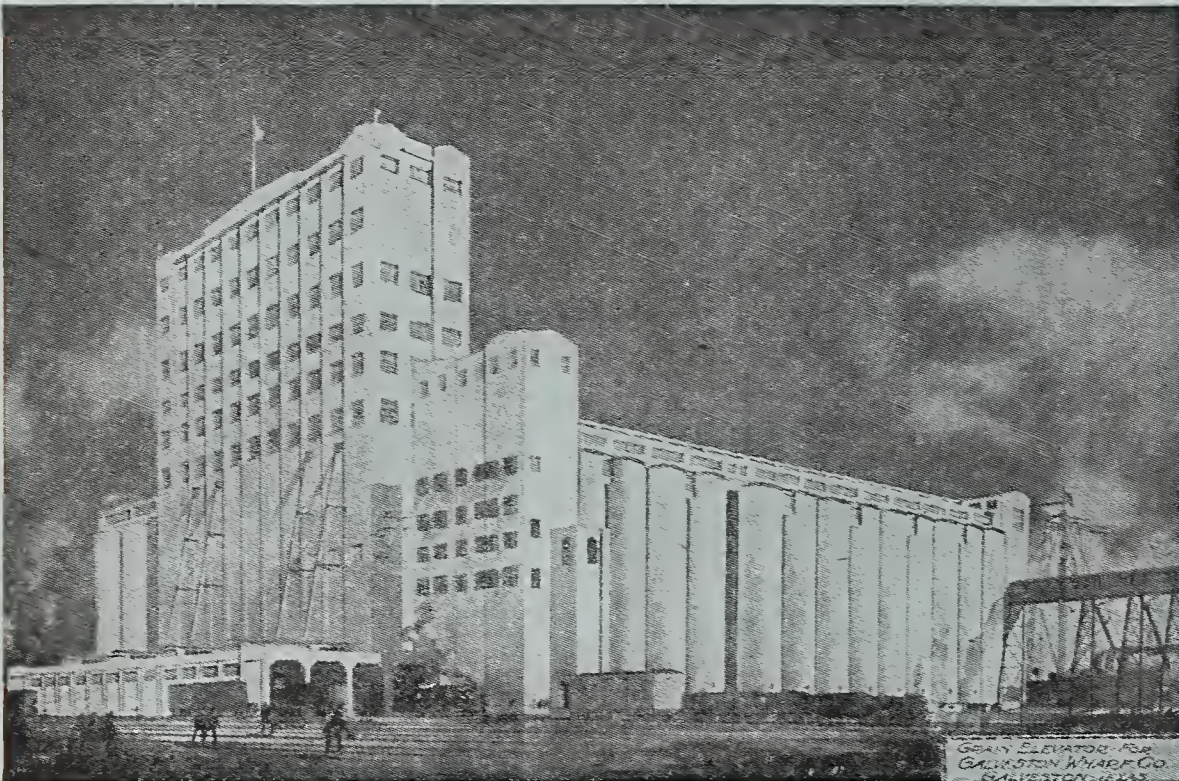
PRICE: \$15.00 F. O. B. cars at factory

Detroit Scoop Truck Co., 993 Osborne Place, Detroit, Mich.



## DIAMOND RUBBER CO. INDUSTRIAL NEWS

# Diamond grain belts will speed America's grain at another important port



GALVESTON'S NEW ELEVATOR . . . Designed by Horner & Wyatt, to be erected by The Jones-Hettelsater Construction Co. of Kansas City. All machinery and mechanical equipment by The Webster Manufacturing Company. All belts by Diamond.

**T**HE selection of Diamond Grain Belts for the Port of Galveston's new 6,000,000 bushel elevator was not surprising, because in the past Diamond Grain Belts have made a record of service at many of America's important ports on the Pacific Coast, on the Great Lakes, the Gulf of Mexico, the Atlantic seaboard, and on the great inland waterways.

Galveston is known as "The Port of quickest dispatch." Its commerce aggregated last year some \$700,000,000 and a large increase is expected during 1930.

The new elevator will be the largest

port elevator in America. It is being built to insure greater speed and economy in the handling of grain, and it will be able to transfer 200,000 bushels of wheat an hour into boats!

There will be 10 elevator legs with a capacity of 25,000 bushels per hour, and in addition to this, the belting equipment will include 20 belts 42" wide, each with a capacity of 25,000 bushels per hour.

. . .

Swift, uninterrupted service is of the highest importance, and Diamond Grain Belts can be depended upon to do their part.

## THE DIAMOND RUBBER COMPANY, INC.

Distributors in most principal cities. Branches as follows:

Akron / Atlanta / Kansas City / New York / Philadelphia  
Dallas / Chicago / Los Angeles / Seattle / San Francisco



SHIPPING GALLERY at the Port of Houston, also equipped with Diamond Belts.

# Diamond

RUBBER BELTING  HOSE • PACKING



# One of World's Largest Elevators

## SANTA FE ELEVATOR A

*Is Fully Equipped with WEBSTER transmission  
and conveying machinery*



Santa Fe Elevator A in Kansas City operated by the Davis-Noland-Merrill Grain Co. ranks among the world's largest elevators, having an unloading capacity of 200 cars and a loading capacity of 250 cars within a normal working day. Its total storage is 6,000,000 bushels.

This huge house is equipped throughout with WEBSTER machinery. It is one of the most economically operated houses in the world and WEBSTER equipment is largely responsible for its economy in operation.

*WEBSTER equipment is patterned with care and well designed,  
and the most durable that can be manufactured  
It is the standard for elevator equipment.*

### For Over 50 Years

The names of Webster and Weller have been familiar to the grain trade as manufacturers of high grade machinery. During this period most of the large, as well as the smaller Elevators have depended on us for their elevating, conveying and power transmitting machinery.

That it has served its purpose well, is attested by the fact that when an elevator increased its capacity, Webster or Weller machinery was usually specified.

Because it is better fitted and more carefully designed it reduces installation costs and difficulties; also reduces renewal and repair bills.

### A Few of Our Products

Apron Conveyors	Elevator Boots	Power Shovels
Belt Conveyors	Elevator Casing	Car Pullers
Chain Conveyors	Elevator Heads	Dock Spouts
Mixing Conveyors	Bag Elevators	Pulleys
Screw-Conveyors	Elevator Spouts	Hangers
Bucket Elevators	Malleable Chain	Sprockets
Elevator Buckets	Friction Clutches	Gears
Etc.		

*For equipment plans for your project, consult with us.*

## WEBSTER MFG. CO.—WELLER MFG. CO.

*Plant at Tiffin, Ohio*

*Plant at Chicago, Ill.*

### General Offices

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Webster Brinkley Co.  
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Webster-Inglis, Ltd.,  
Toronto, Ont., Can.

The Michigan City Foundry Co.  
Michigan City, Ind.

### Sales Offices

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Cincinnati

Cleveland

New York

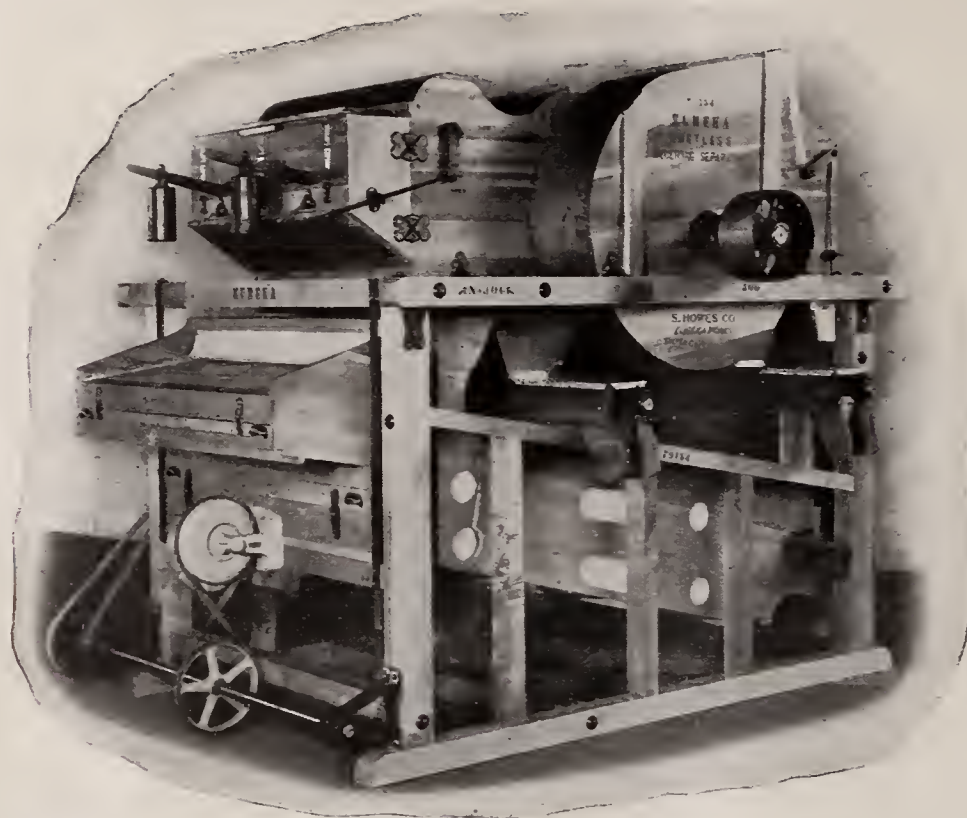
Philadelphia

Pittsburgh





"Eureka" - "Invincible" Grain Cleaning Machinery



### "EUREKA" ELEVATOR SEPARATOR

Equipped with "Eureka-Buhler" Drive

This machine has no eccentrics!

In What Condition Is That Separator of Yours? Are Its

## ECCENTRICS SHAKING IT APART?

Don't let that worry you. Everything will turn out all right. You'll thank your lucky star that the old cleaner did cut up such capers for after you've put on that wonderful new eccentric-less Buhler Drive you could never afterward be tempted to use a separator equipped with any kind of eccentrics because the Buhler Drive has made them all obsolete.

## Another delighted customer!

The two "Eureka-Buhler" Drives have been fitted to the No. 53 P & R Separator and they are doing their work very satisfactorily. The absence of vibration is remarkable. With the previous method of drive which was by ball bearing eccentrics, we had to brace the separator from several angles so as to steady it. All these braces have now been removed and the machine runs perfectly steady. Apart from the saving in power the "Eureka-Buhler" Drive will considerably increase the life of the machine.

We shall without delay order two similar drives to use on our other P & R Separator (No. 54) as this machine is suffering from excessive vibration and the ball bearing eccentrics are giving trouble." S—— R—— Milling Co., Ltd.

Write for Catalog AE125

# S. HOWES CO., Inc.

## INVINCIBLE GRAIN CLEANER Co. SILVER CREEK, N.Y.



"EUREKA" - "INVINCIBLE" GRAIN CLEANING MACHINERY



# REVOLUTIONIZING FEED MANUFACTURING

The Miracle Molasses Process (The original Agee cold process) is revolutionizing the manufacturing of feed all over the United States.

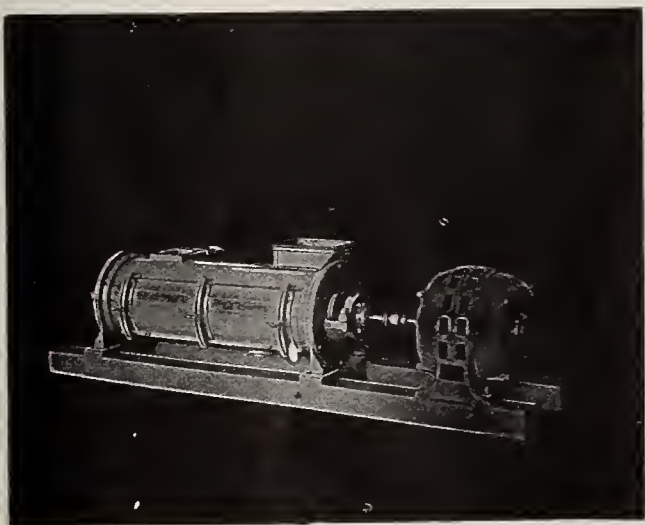
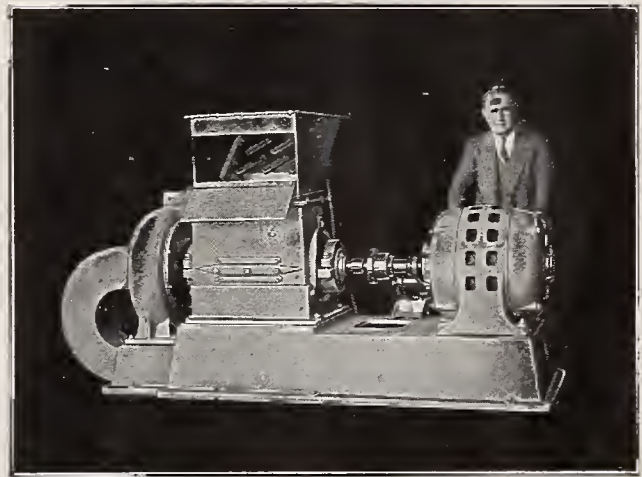
It is showing feed men that they can meet the farmer's problem in giving him cheaper and better feeds.

It is difficult for the average farmer to purchase high grade commercial feeds today and sell his butter fat, eggs, poultry or any other kind of meat at a price that will give him a profit.

The Miracle Molasses Process enables any local man to give the farmer fresher and better feeds at lower prices—prices that leave him a profit even at the low market on which he must sell his farm produce.

The day is rapidly approaching when all feeds will be made locally. The reasons being cheaper and better feeds—no freights and no stale feeds—fresh and better feeds at lower prices.

Some one is going to make these better and cheaper feeds in your community. WHY NOT BE THE ONE TO DO THIS AND HAVE THE MOST PROFITABLE BUSINESS IN ALL THE MILLING LINE.



We are building many more feed mills than all of the other American Milling engineers put together, the reason being that we have a line of profit earning machinery that cannot be duplicated.

Write us at once about your particular location and we will send you our booklets about the "MIRACLE SWEET FEED SYSTEM" and follow it with one of our engineers, if you wish, to figure on your installation.

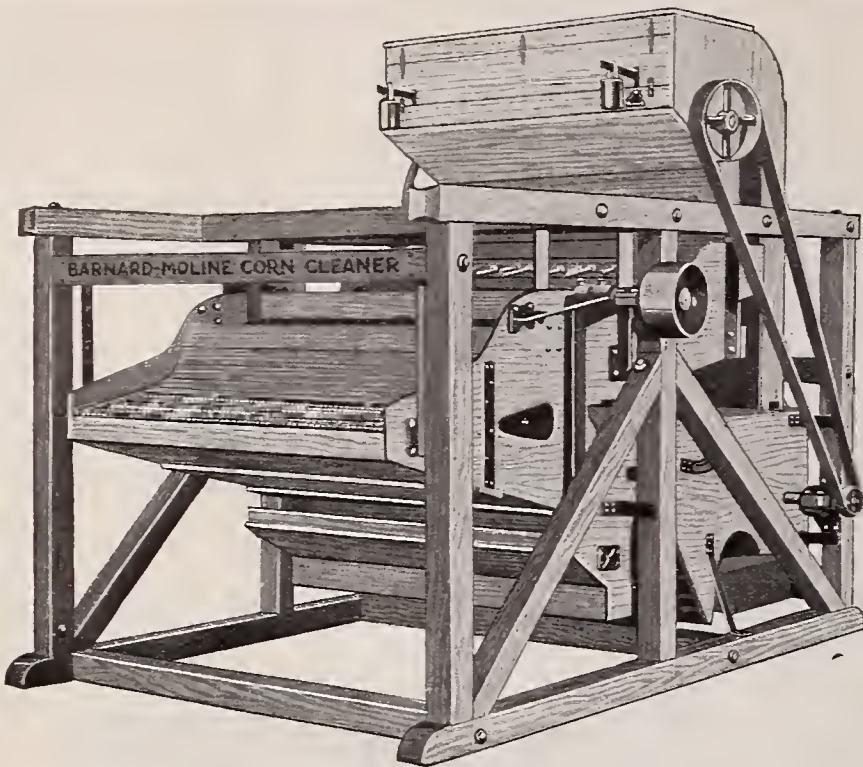
## ANGLO AMERICAN MILL COMPANY

THE WORLD'S LARGEST BUILDERS OF GRAIN GRINDING MACHINERY

240-266 Kennaday Ave.

Owensboro, Ky.





The New B. M. Corn Cleaner represents the very latest development in a sieve type Corn Cleaner

It is especially adapted to large capacities in small space.

A Request for Catalogue M-A (Section 15) Will Bring Full Particulars of Our

## COMPLETE LINE OF CORN SHELLERS AND CLEANERS

GET YOUR ELEVATORS READY FOR THE NEW CROP BY INSTALLING THE LATEST IMPROVED

## B. M. GRAIN SEPARATORS AND OAT CLIPPERS

Send us your inquiries and orders for

REPAIR PARTS  
PERFORATED METAL  
BELTING  
CONVEYORS  
ETC., ETC.

PRICES RIGHT
SERVICE PROMPT      QUALITY THE BEST

Throw Away Your Antiquated Grease Lubricated Idlers  
and Install Modern Anti-Friction Equipment

## B-M BELT CONVEYOR IDLER

CAST IRON OR  
STEEL ROLLERS

ANTI-FRICTION

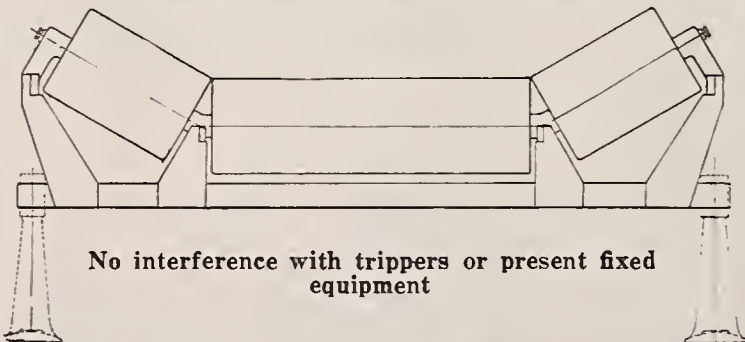
(PATENT PENDING)

ROLLER OR  
BALL BEARINGS

WHY?



Put this unit right into your stands  
**REDUCE FIRE HAZARD.**



No interference with trippers or present fixed equipment

BECAUSE

Save 50% in power.

Cut cost of maintenance and lubricant expense to almost the vanishing point.

Decrease strain on and increase life of belts.

Eliminate injury to belts.

Use lighter duck and fewer plies in new belts.

**HUGH P. ROBBINS**  
*Special Sales Engineer*  
Old Colony Building  
Chicago, Illinois

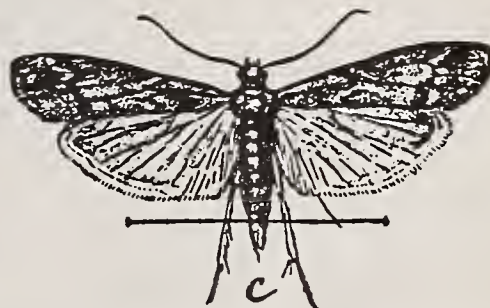
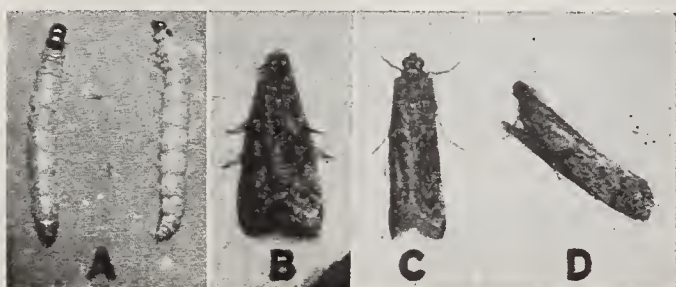
**BARNARD AND LEAS MANUFACTURING CO.**

MOLINE, ILL., U. S. A.  
QUALITY MILL BUILDERS SINCE 1854



# TETRAFUME

(Registered)

*the wonder insect killer***Kills Weevil and Moths also Kills Rats and Mice****RIDS YOUR PREMISES OF THESE PESTS**

*It Is Non-Inflammable—Non-Explosive—Approved by Fire Insurance Companies*

**Harmless—Stainless—Leaves No Odor****Also cools grain so it will not heat in bin or car**

GOOCH'S  
BEST  
FLOUR  
PANCAKE FLOUR  
CORN MEAL

EDGES MILLERS—ROBINSON  
A B C—FIFTH EB

**MILLING & ELEVATOR CO.****LINCOLN, NEBRASKA**

GOOCH'S  
BEST  
BRAN  
POULTRY FEEDS  
SHORTS

STRAIGHT OR MIXED CAPS

The falling off in exports of grain, mixed feeds, flour and other grain products is attributed to weevil infestation.

Approved by Underwriter's Laboratories.

Used successfully for past ten years

June 5, 1930

Douglas Chemical & Supply Co.,  
829 Southwest Boulevard,  
Kansas City, Mo.

Gentlemen:

We have been using your Tetrafume for fumigation for the past eight years and have found its use very satisfactory in eradicating weevil in stored and sacked grain of all kinds. We also find Tetrafume very effective in ridding our elevator of rats and mice.

We consider Tetrafume a very fine fumigant and recommend it to others.

Yours very truly,

GOOCH MILLING &amp; ELEVATOR CO.

GCF:JH

*G. C. Ferguson*  
Superintendent

High moisture content—from rains and combine—help to breed weevil and other insects. For protection keep a drum of Tetrafume constantly on hand.

*Write today for further particulars and price list.*

**DOUGLAS CHEMICAL & SUPPLY CO.**

807-809 Southwest Boulevard

KANSAS CITY, MO.

Associate Member Grain and Feed Dealers National Association  
Nebraska Grain Dealers Association.

A discount of 10 per cent from list price will be allowed on all orders—having this coupon attached to same, during the next thirty days. American Elevator & Grain Trade, August, 1930

DOUGLAS CHEMICAL & SUPPLY CO.  
807-809 Southwest Boulevard, Kansas City, Mo.





**Manchester Ship Canal Elevator**  
Manchester, England  
Capacity 1,500,000 Bushels  
Completed 1914



**Buenos Aires Elevator Co.**  
Buenos Aires, Argentina  
Capacity 750,000 Bushels  
Completed 1920



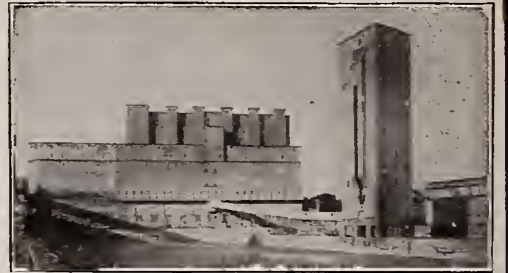
## John S. Metcalf Co. Grain Elevator Engineers



**Chicago & North Western Railway Elevator**  
South Chicago, Illinois  
Capacity 10,000,000 Bushels  
Completed 1920

### OFFICES:

Chicago, Illinois	- - -	111 W. Jackson Blvd.
Montreal, Canada	- - -	460 St. Helen Street
Sydney, Australia	- - -	Pitt Street
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Vancouver, B. C.	- - -	837 W. Hastings St.



**Harbour Commissioners Elevator No. 2**  
Montreal, Quebec  
Capacity 2,600,000 Bushels  
Completed 1912



**Sydney Terminal Elevator**  
Sydney, Australia  
Capacity 6,400,000 Bushels  
Completed 1921



## MONARCH

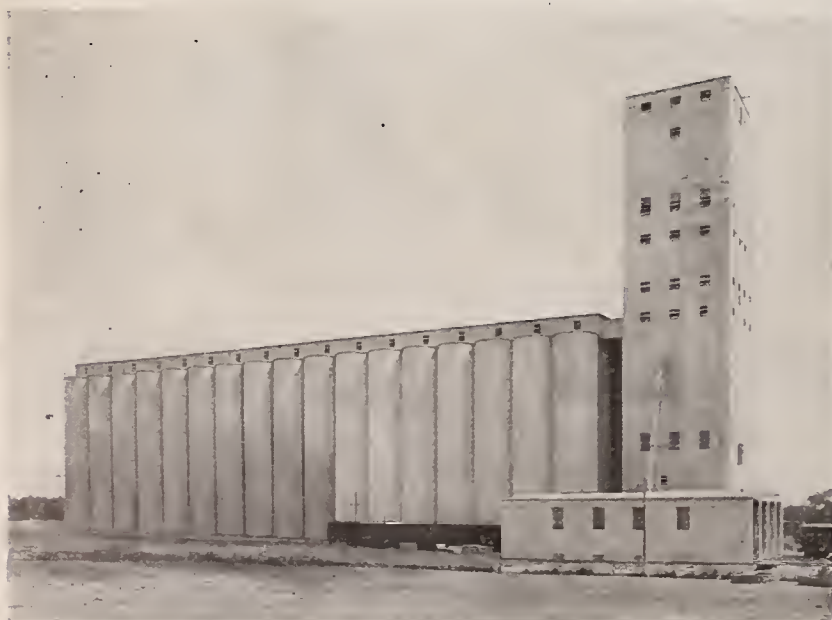
Built Elevators  
Assure You  
Economical Design  
First Class Work  
Efficient Operation  
and  
Satisfaction  
Let Us Submit  
Designs and Prices

One of the Modern Houses Which Has Made a Record  
for Rapid and Economical Handling  
**CONCRETE CENTRAL, BUFFALO, 4,500,000 Bu.**



**MONARCH ENGINEERING CO.**

**BUFFALO, N. Y.**



PILLSBURY FLOUR MILLS CO. GRAIN ELEVATOR, WICHITA, KANSAS

*Designed and Built By*

## THE BARNETT AND RECORD COMPANY

PIONEERS IN DESIGN AND CONSTRUCTION OF

**FIRE PROOF GRAIN ELEVATORS  
AND MILL BUILDINGS**

OFFICES

MINNEAPOLIS, MINNESOTA

DULUTH, MINNESOTA



## MACDONALD ENGINEERING COMPANY

### CONSTRUCTING ENGINEERS

*Designers and Builders of*

**GRAIN ELEVATORS, FLOUR  
MILLS, WAREHOUSES, ETC.**

*We Have Specialized in*

**CONSTRUCTION IN THIS FIELD FOR  
MORE THAN 40 YEARS**

*Sketches and Estimates Gladly Furnished*

**MAIN OFFICE**  
One La Salle Street, Chicago

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SAN FRANCISCO

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## JAMES STEWART CORPORATION

W. R. SINKS, President

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**ENGINEERS AND CONTRACTORS**

FISHER BUILDING — 343 S. DEARBORN ST.

CHICAGO, ILLINOIS

Phone Harrison 8884

THE MOST EFFICIENT GRAIN ELEVATORS IN AMERICA  
ARE EQUIPPED WITH

## KELLY PNEUMATIC TUBE SYSTEMS

KELLY PNEUMATIC TUBES ARE  
INSTALLED IN  
QUAKER OATS PLANT, ST. JOSEPH  
QUAKER OATS PLANT, CEDAR  
RAPIDS  
ILLINOIS CENTRAL ELEVATOR,  
OMAHA  
A. E. STALEY, DECATUR

STANDARD AND SPECIAL TUBES  
AND CARRIERS TO MEET EVERY  
REQUIREMENT

EXPERIENCED ENGINEERING  
SERVICE AT YOUR COMMAND

ESTIMATES PROMPTLY FURNISHED  
ON CASH CARRIERS  
PACKAGE CARRIERS  
PNEUMATIC TUBES  
LIGHT ELEVATOR AND  
BELT CONVEYORS

**KELLY CASH AND PACKAGE CARRIER CO.**  
422 NORTH WESTERN AVENUE  
CHICAGO, ILL.

## L. A. STINSON CO.

*Engineers and General Contractors*

**ELEVATORS, MILLS AND WAREHOUSES  
COMPLETE**

**332 So. La Salle Street Chicago, Ill.**

*General Overhauling and Improvements*

**FEGLES CONSTRUCTION CO., Ltd.**  
ENGINEERS -:- CONSTRUCTORS  
FORT WILLIAM, ONT. MINNEAPOLIS, MINN.

*DESIGNED for the years  
ahead—an advance we  
propose to maintain.*



N. M. PATERSON CO.

2,500,000 Bu. Elevator

FORT WILLIAM, ONT.



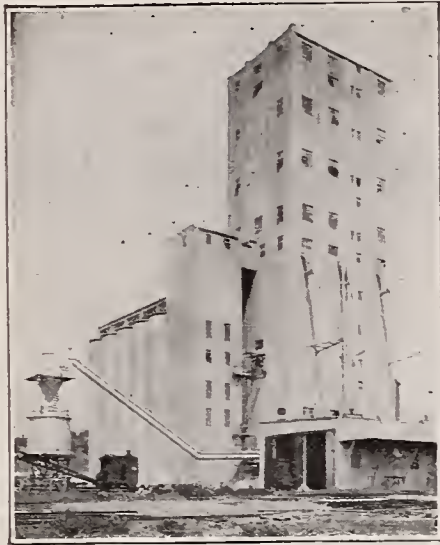
# Hess Direct Heat Driers

Have all the advantages and flexibility  
of Hess Steam Heat Driers

WITHOUT

Expense and Bother of Steam Boilers

*Simple to Install   Simple to Operate   Automatic*



1,000 Bushel Hess Direct Heat  
Drier and Cooler

Crowell Elevator Company  
I. C. Railway Elevator, Omaha, Nebr.

## HESS DRIERS ARE PATENTED

WE DO NOT INFRINGE THE PATENTS  
OF OTHERS. WE GUARANTEE THIS.

HESS WARMING & VENTILATING CO.

1207 South Western Avenue  
CHICAGO, ILLINOIS

HESS DRIER COMPANY OF CANADA, LTD.

68 Higgins Avenue, Winnipeg, Manitoba

LET US PLAN A GRAIN DRYING PLANT FOR YOU

## PORTLAND, OREGON

Is an ideal location for that new mill and elevator of yours.

Portland is in the heart of the agricultural region of the Pacific Northwest. It also has an abundance of cheap, hydroelectric power for manufacturing purposes, good ocean and railway shipping facilities and a fair supply of skilled labor, practically all of which is non-union.

Portland is also an ideal place to live. It has a mild climate, good water and plenty of nice hotels, apartment houses and homes. Also good schools, theaters, libraries, clubs and parks.

I would be pleased to serve you in the location, design and construction of that new mill of yours.

## HENRY BLACK

*Complete Building Construction*

383 Pittock Block - - - Portland, Oregon  
Telephone Broadway 8060

*Iron Workers, Cement Workers, Bricklayers, Carpenters, Roofers,  
Plumbers, Electricians, Cabinet-makers, Painters and Paperhang-  
ers; also Real Estate Bonds and Mortgages.*

## JONES-HETTELSATER CONSTRUCTION CO.

Designers and Builders

MILL BUILDINGS :: ELEVATORS  
FEED PLANTS

708-9 Mutual Building, Kansas City, Mo.

## GRAIN ELEVATORS

Have your next elevator designed by *Experienced  
Elevator Designers*

Have your work supervised by *Competent Engi-  
neering Supervisors.*

Have your old elevator checked for *more efficient  
operation.*

**HORNER & WYATT**

*Consulting Engineers to the Grain Trade*  
470 Board of Trade Bldg. Kansas City, Mo.

## ROSS B. WILSON

CONSULTING ENGINEER  
TO

THE GRAIN ELEVATOR TRADE

332 SO. LA SALLE ST.

CHICAGO, ILL.

PHONE WEBSTER 7126



## How About Corn?

Looks like a short crop doesn't it?

If it does, and is, and your bins are not equipped with the

### ZELENY THERMOMETER SYSTEM

right now is the time to have it installed if you store corn.

Do you know that the

### ZELENY THERMOMETER SYSTEM

can be installed for as little as one-quarter of a cent per bushel? Of course, your storage capacity governs the price per bushel—but supposing it cost a cent and a half a bushel, isn't that cheap insurance in a year when the corn crop is below normal and prices are high? And another thing, how do you think you would feel if you had half a million bushels in your bins in February or March that had a temperature of 40° down to 20°, and it wasn't necessary to disturb it to learn what condition it was in? You would feel that your money had been well spent for the

### ZELENY SYSTEM

and rightfully so, for the short grain in any year is when the

### ZELENY SYSTEM

pays for itself in one year, and is a money maker for you ever after at a very small maintenance expense, if any. I wish I could say more, but we can only afford a quarter page space, so write us.

### ZELENY THERMOMETER COMPANY

542 S. Dearborn St.  
Chicago, Ill.

## Two Birds With One Stone

Lacing, Mechanically Correct: Each hammer-clinched steel tooth of Alligator Steel Belt Lacing holds its width of belt in a powerful compression grip like a tiny vise.



## ALLIGATOR

TRADE MARK REG. U.S. PAT. OFFICE

## STEEL BELT LACING

THE great surplus of strength of this smooth hinged joint gives length and reliability of service, unexcelled, in any type of belt and practically any service.

The sectional steel hinge pin (patented) absorbs friction in the joint.



### Belt End Protection

Thrown In Sealing the belt end with the powerful compression grip prevents internal friction and ply separation at the joint. Alligator Steel Belt Lacing prevents belt end troubles and increases the life of belting.

Kill two birds with one stone!

Eleven sizes. Sold throughout the world

FLEXIBLE STEEL LACING CO.  
4627 Lexington Street Chicago, U. S. A.  
In England at 135 Finsbury Pavement, London E. C. 2



Only a  
Hammer  
Needed

Note the Alligator Stamped on the Lacing and the Yellow Labeled Box for Your Guidance in Buying



## MONARCH BELT CONVEYORS MOVE GRAIN AT LOW COST

These Monarch Timken equipped seamless tubing idlers, with extra heavy shafts make a road bed of unequal smoothness for your grain belts. Sturdy design and perfect construction enable Monarch to stand up under hard and fast service. Monarch Trippers, too are acknowledged by designing engineers as the heaviest and sturdiest available. Complete details and estimates of conveyors to suit your needs will be furnished on request.

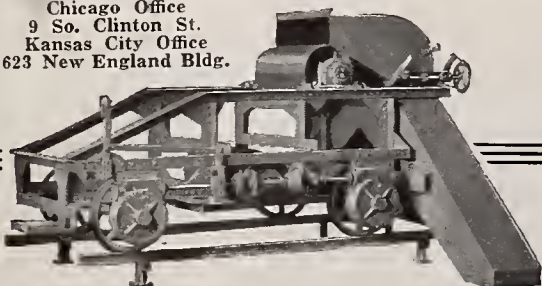
Ask for a copy of Catalog of grain handling equipment.

## SPROUT WALDRON & CO., Inc.

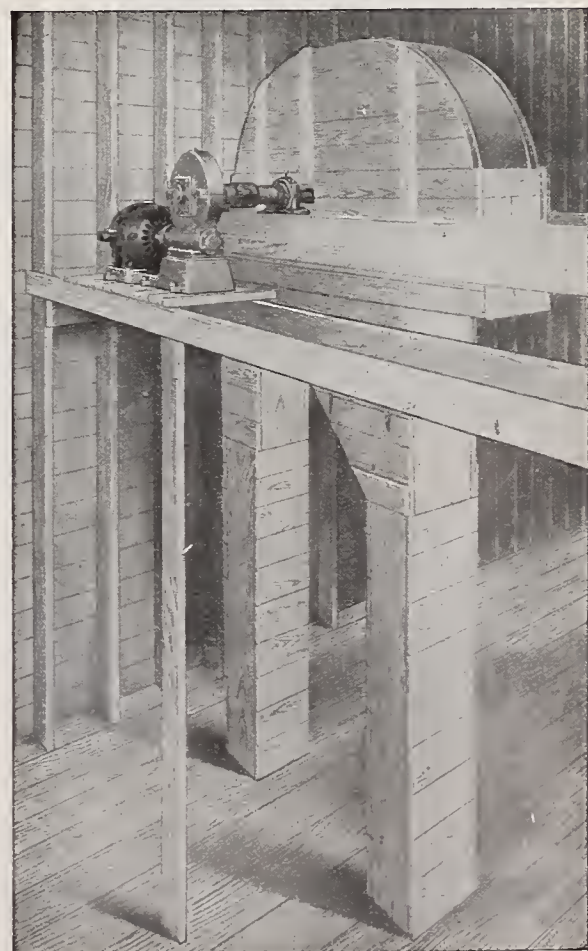
1203 Sherman St., Muncy, Pa.

Flour, Feed and Cereal Milling Machinery and  
Grain Handling Equipment

Chicago Office  
9 So. Clinton St.  
Kansas City Office  
623 New England Bldg.

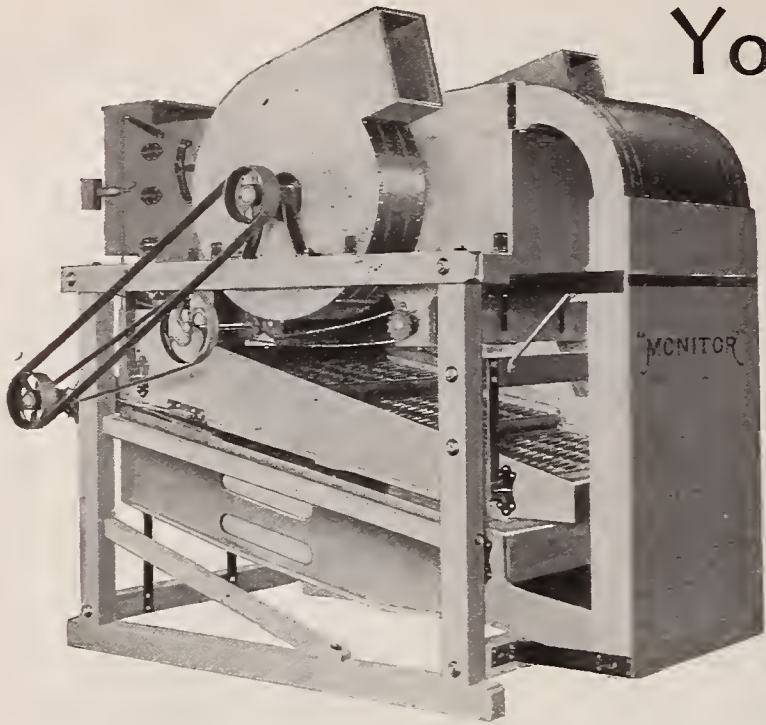


## A Perfect WORM GEAR HEAD DRIVE AT VERY REASONABLE PRICES



Union Iron Works, Decatur, Ill.





## You Need the Proper Tools

if you expect to conduct your grain business so that it will return the proper profits.

The Cleaning machine is of paramount importance. If that fails, your profits fail with it.

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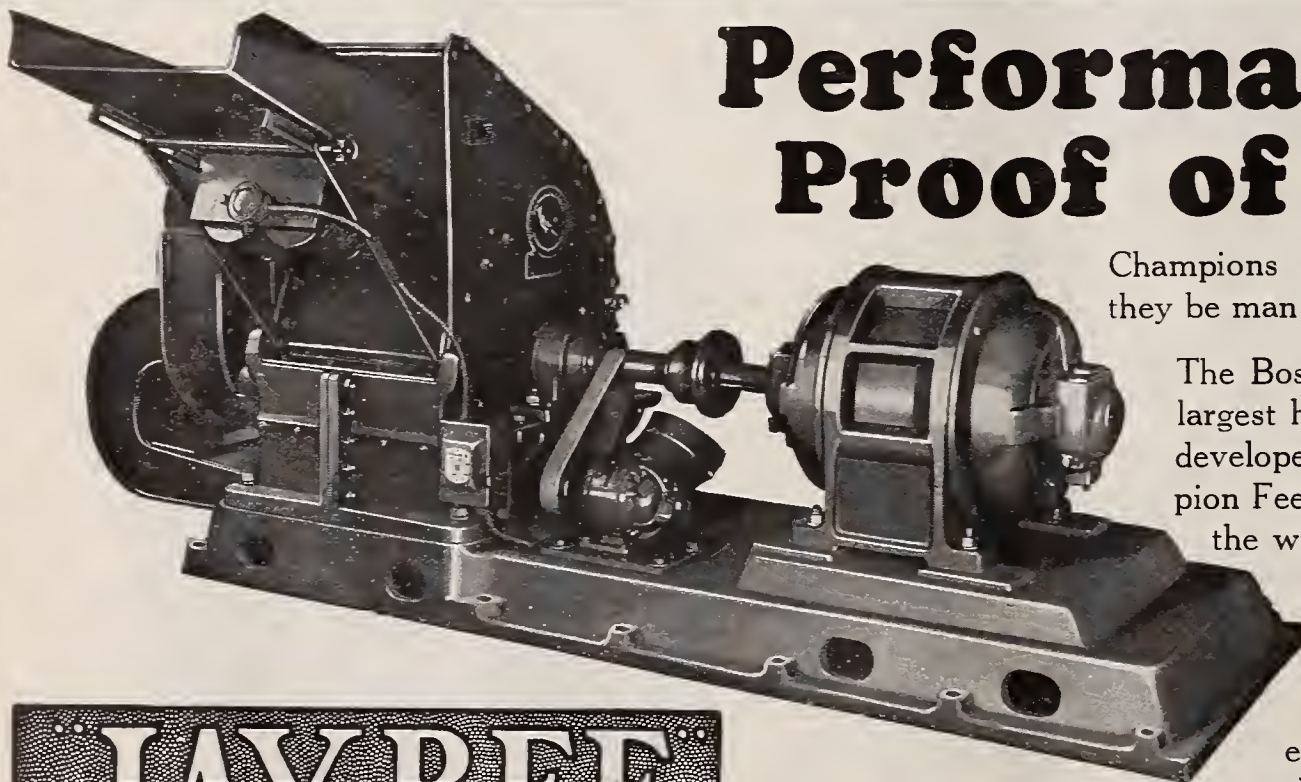
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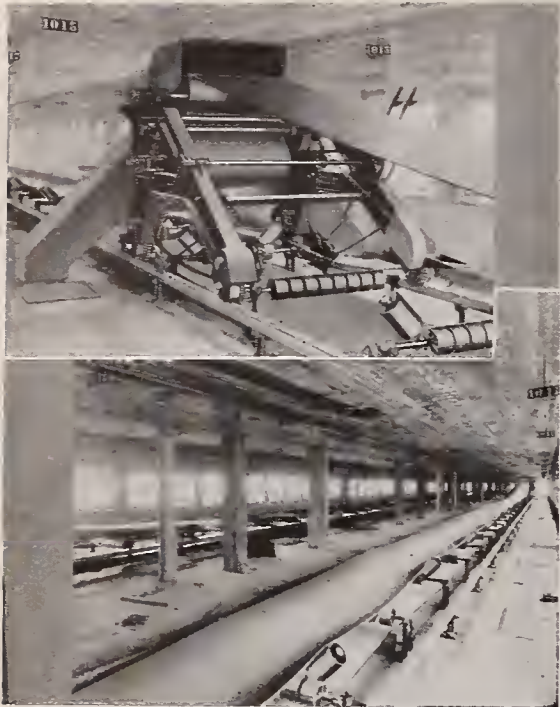
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VOL. XLIX

CHICAGO, ILLINOIS, AUGUST 15, 1930

NO. 2

# Canada's New 5,500,000-Bushel Elevator

## Lower Lakes Terminal Near Prescott, Ont., Erected as Part of Plan to Materially Increase Canadian Grain Storage Capacity

CANADA'S most recent grain tie-up last year, which resulted in grain being backed up to the prairies, has awakened the dominion to the need of more ample terminal storage space. Several large elevators are now in the process of construction and others have been recently completed so that a recurrence of the muddled grain situation will be made more difficult.

Among the latest elevators to reach completion is the Lower Lakes Terminal located at Johnson's Bay, about three miles below Prescott, Ont., work on the structure having terminated early this month. The unit has a storage capacity of 5,500,000 bushels and possesses unusually swift loading and unloading facilities.

The building was proposed as part of a plan to provide Canadian terminal points with sufficient storage capacity to meet any heavy demand for space. It will be recalled that it was last fall when Canada experienced one of its periodical grain tie-ups, due to unfavorable foreign demand for Canadian wheat. Europe refused to buy except at extremely low prices and dominion farmers were reluctant to sell. Consequently, the season's crop ceased to flow and choked elevators all over the dominion. When there was no more storage space on land, grain carrying vessels were enlisted to care for the surplus, a large amount of grain remaining in harbor-locked boats throughout the winter months. Much grain was of necessity stored in country elevators and it was not until this spring that grain began to move at a rate approaching normal.

The improvised means of storage used after the larger elevators became full created a sentiment in favor of more adequate facilities for dominion grain. The result was that several new elevator projects were planned and many are now being carried through.

The Lower Lakes Terminal, built by the Canadian Department of Public Works with C. D. Howe & Co. acting as consulting engineers, is Canada's newest terminal unit. Ample property was purchased to allow for future extensions as well as for such industries as are auxiliary to a terminal of this kind. Convenient trackage and ample yard facilities are provided, connections with both the Canadian Pacific and Canadian National railways being built into the site with favorable grades.

The elevator presents a long, narrow appearance.

There are unloading facilities on one side and loading out facilities to boats on the other. Car loading facilities are located at the inshore end. At the outshore end, a dock and marine leg are provided for lightering canal size boats, thus allowing boats of this class to take on a full cargo at lake ports and discharge cargo down to canal draught. The elevator can unload boats of 1,000,000 bushels in 24 hours, and load boats with 1,500,000 bushels in 10 hours, with a capacity for loading cars of 1,000,000 bushels per day. Facilities for lightering boats are in addition to the ordinary operations of the elevator and unloading capacity at this berth is not included in those before mentioned.

The dock for unloading upper lake boats is 1,340 feet long and is made for berthing two of the largest size lake boats in locations so that all holds of both vessels can be reached by the traveling marine towers without moving the boats.

Four travelling marine towers are provided, each tower having a capacity of 35,000 bushels per hour on the dip. The unloading slip is 250 feet wide and is dredged to a 25-foot depth. Dock facilities are provided across the slip for tying up boats waiting

charging grain direct from the marine towers to shipping bins without re-elevation. Shipping facilities to boats are by four elevator legs of 25,000 bushels per hour capacity each, located in the cupola at the center of the loading out slip. Grain is weighed out in four 2,500-bushel hopper scales, which discharge direct to the shipping bins.

The marine leg for lightering canal size boats has a capacity of 25,000 bushels per hour and contains a separate scale and leg for delivering grain into the elevator. One berth is always available for lightering boats and is used for no other purpose.

Loading arrangements to cars consist of four elevator legs of 17,000 bushels per hour loading capacity to four tracks by direct car spouts. The loading cupola for cars is located at the inshore end of the elevator. Cleaning facilities are located on the inshore and are sufficient for the needs of the elevator, with the large garners above and below the cleaning machines. A drier with boiler house is also used at the inshore end for treating salvaged and out-of-condition grain.

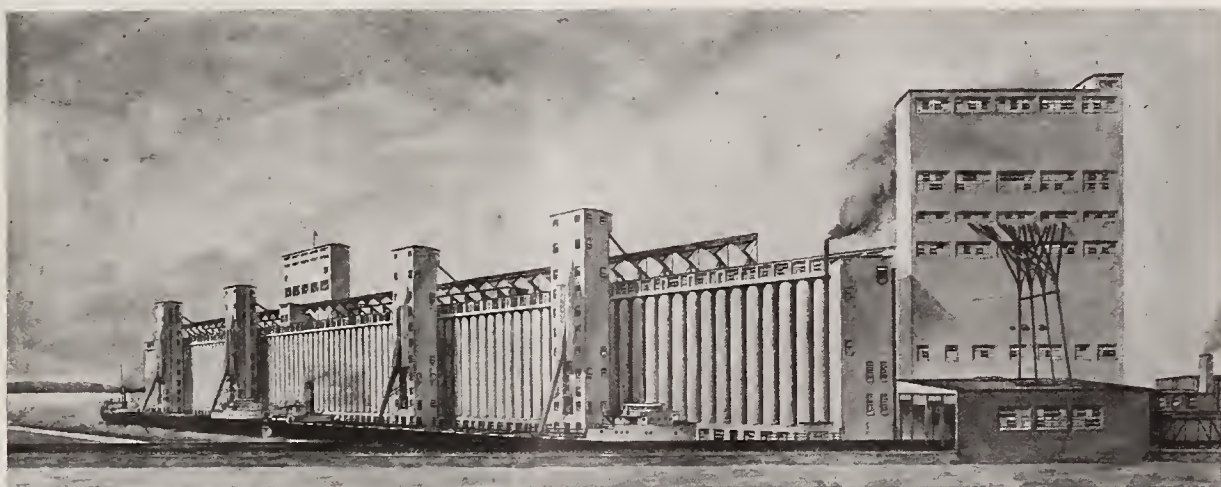
A large building is provided to house the elevator sub-station, elevator administration offices, and millwright shop. This building also contains lunch rooms for the elevator staff. A 12-car garage is adjacent to this building.

The elevator is equipped with the latest improved elevator machinery. Roller bearings are used throughout the plant.

With a crop coming to maturity about equal to last year's, and with European tariffs making it increasingly difficult to make sales abroad, the usefulness of the new elevator will be demonstrated during its initial season.

The condition of Canadian farmers parallels our own with this difference: Both countries have large wheat surpluses, but American farms have an enormous number of animals and poultry, which in face of corn shortage, will enable our farmers to market a large part of their surplus wheat as milk, eggs and meat, while Canada must market its crop as wheat and flour only, or store it until a later day.

While storage is necessary, and on a large scale, for handling Canada's grain supply, still it is only a small factor in solving the marketing problem. Storing grain does not get rid of it. It must be sold abroad, and at a price which meets the favor of buyers with a world-wide market.



LOWER LAKES TERMINAL NEAR PRESCOTT, ONT.

to unload. Additional marine towers can be provided on this slip as business may warrant.

The dock for loading river boats is 800 feet long with berths for three boats under the shipping bins for simultaneous loading. Five shipping spouts are used for each of the three loading berths. The loading out slip is 200 feet in width, and is dredged 25 feet. A dock is provided across the slip for tying up boats waiting to be loaded.

Grain from boats is weighed into the elevator by scales in the marine towers. The grain is then discharged direct from the towers into the elevator cupola, where it can be discharged to six cupola belts, or direct to bins. There are facilities for dis-



## ... Spontaneous Ignition ...

### Its Cause and Cure Fully Explained

**H** EAT accompanies oxidation whether it is in the form of rusting iron or the rapid decomposition of vegetable matter. Fire is rapid oxidation evidenced by light and heat. When heat is generated by oxidation at a more rapid rate than it is dissipated by radiation, fire results. Spontaneous ignition is as simple as that and yet scientists frankly say that but little is really known of its actual cause. Because of the difficulty with which spontaneous ignition may be caused, experimentally, its actual dangers have been little appreciated.

Realizing the seriousness of this hazard, what may be done to prevent fires therefrom? If the instructions below, which were prepared by the Mutual Fire Prevention Bureau, are carefully followed, the hazard should be greatly minimized.

First of all in importance is the preparation of the plant for storage of materials subject to spontaneous combustion. All concealed spaces in walls, such as walls partially ceiled on the inside of the studding, leaving a space between the sheathing and ceiling, should be removed. Holes through the floor or at the ends of floor boards permitting sweepings to sift through to a concealed space below or to the top of the foundation wall, should be closed. All spaces below floors should be examined to be sure that no sweepings or piles of dust have already accumulated. Even small amounts of many kinds of feeds are dangerous if permitted to accumulate in a damp place.

*Storage of grain.*—First, don't buy wet grain unless equipped to dry it. Cleaning, blowing, and turning will condition slightly damp grain, but bin-burned grain cannot make money and may burn the elevator.

Oats in the natural sweat are not dangerous and all grain men will advise against turning and cleaning oats which have been stored when reasonably clean and dry. Some heat is necessary to the process of sweating. Dirty or wet oats get hot and that is a different matter. They will bin burn and spoil entirely if not cleaned and turned. If you have stored oats and there is any possibility of the grain being dirty or wet, test for heat regularly until the danger is past.

The following is an approved method of testing: An iron rod driven into the bin and left for a few minutes, then removed, will tell you whether or not the grain is hot. One layer of oats may be hot while the top and bottom are cool and the iron rod will tell the story.

Prepare to extinguish a fire by soaking the bin from above. Then draw the grain off through an open spout under constant inspection. At the first sign of smoke or fire stop re-elevating and provide means of getting the grain out of the elevator. Should there be evidence of much fire, close the spout and saturate the bin before proceeding.

*Storage of mixed grain.*—Examine every car of feed for moisture content, whether in bulk or in sacks. Station a man to watch the stream on all bulk feeds, stopping the feed at once when any evidence of damp feed appears. A leaky car will often wet a small spot in an otherwise dry car. Examine each sack taken from a car for evidence of dampness from a leaky car.

Pile sacked feeds only in tiers—six inches between each and not over six feet high nor 16 feet long. Clean the floor of all loose feed and grain. Then place two-by-fours or scantlings two feet apart and pile the bottom sacks on these. When piles must be over six feet high separate each five feet by two-by-fours or scantlings, two feet apart. When over 16 feet in length, break the tiers with a passageway for inspection. Pile the feed so that the first carload put in will be the first to come out. Inspect the stock to determine its condition at least twice a week.

To test the temperature of bulk feeds, drive iron pipes or rods, one inch or less in diameter, to within a foot of the bottom of flat-bottomed bins

or to the top of the hopper of hoppers bins. Space the rods every six or eight feet. Pull the rods each day for testing. If too warm for comfort when held against the back of the hand, the feed is in dangerous condition and must be moved. Re-elevating over a coarse screen is usually all that is necessary. Several turnings may sometimes be required.

*Storage of hay.*—Inspect all incoming hay carefully. Hold out all bales showing evidence of heating or excessive moisture. Pile the hay so that each bale will be exposed to ventilation at least once on one surface. Provide ventilators through the foundation and through the floors. Inspect hay regularly and if found heating, remove at once. Stand each bale that shows warmth on end, exposed to air on all sides. Remove hot bales from the building to a safe place.

In concluding, the report by the Mutual Fire Prevention Bureau says that losses from spontaneous ignition are usually total and occur most often at night or over week ends when storages are closed and heat and gases accumulate. Spontaneous ignition can be prevented and will be to a large extent when elevator owners are cognizant of the hazard.

### EARLY PREPARATION INCREASES PROTEIN IN WHEAT

"The soil and climatic conditions have almost everything to do with the protein content of wheat," says H. M. Bainer, a director of the Southwestern Wheat Improvement Association. Continuing he says, "Of course the farmer is unable to control the climate, but he can control his soil conditions to a large extent. It is definitely known that nitrogen is the principal constituent of protein and that the protein content of wheat varies in direct proportion to the amount of available nitrates in the soil. Anything, therefore, that can be done to increase the available soil nitrogen will increase the protein in wheat. The two most practical ways of increasing the soil nitrogen are through early preparation of the seedbed and by rotation of wheat with legumes.

"Early preparation puts the soil in a splendid physical condition. It keeps down the weeds and gives the heat, sunshine, and soil moisture a chance to manufacture and accumulate such nitrates and other plant foods as are required to produce high protein wheat. This early work will not only increase the protein from 1 to 2 per cent but will increase the yield from three to seven bushels per acre. On the other hand, wheat ground prepared late usually grows a heavy crop of weeds before it is worked, which uses up the moisture and nitrates and by the time the seedbed is ready for wheat too little time is left to accumulate the nitrates that are needed.

"Where the rainfall is sufficient, some of the best legumes to grow in rotation with wheat are alfalfa, sweet clover, cowpeas and soybeans. Where the rainfall is limited, sweet clover is the best legume to use. Properly inoculated legumes have the ability of increasing the soil nitrogen with the result that the following wheat crop produces an increase in yield of five or more bushels per acre with from 1 to 3 per cent more protein."

### EXPEDITION LEAVES FOR SPAIN TO STUDY ALFALFA

The Department of Agriculture has searched the world, and is continuing its search for foreign plants which may be introduced into the United States as additions to the nation's agricultural system, and its activities have proved to be successful to the extent of millions of dollars of new crop production annually.

Expeditions sponsored by the department have traveled thousands of miles in strange lands, met and overcome hardships and obstacles and emerged

with specimens of plants which have broadened farm production, have created new industries and still give promise of more millions of dollars of products and more industrial expansion.

An expedition, directed by K. A. Ryerson, in charge of the office of foreign plant introduction, and H. L. Westover, of the office of forage crops and diseases, sailed recently for Spain to begin a search of portions of two continents especially for improved types of Alfalfa. The expedition will not confine itself to the plant designated, but will gather plants of all kinds which show promise of value to America and ability to grow in American climate. Thousands of plants of many varieties will probably be shipped back to the department by the expedition.

The group is especially seeking types of Alfalfa which are resistant to bacterial wilt. This disease has become serious in some western districts and has resulted in large reductions in acreage.

### INCREASED WHEAT PRODUCTION IN INDIA

The 1930 wheat production in India is now estimated at 385,000,000 bushels, according to a cable to the foreign service of the Bureau of Agricultural Economics from Consul McNiece at Karachi. The first estimate of the 1930 crop was 368,293,000 bushels and the final estimate of the 1929 crop was 317,595,000 bushels. Domestic consumption is estimated at 335,000,000 bushels, which would leave an exportable surplus of 50,000,000 bushels, but the consul is of the opinion that exports will not exceed 10,000,000 or 12,000,000 bushels unless prices reach high levels, in which case exports may amount to 20,000,000 bushels. Probable exports during June are estimated at 2,600,000 bushels. The new crop wheat is just beginning to arrive at Karachi and it is obvious that the growing regions are withholding supplies.

### CORN EXPORTS CONTINUE TO SHOW DECREASE

Exports of corn from the United States, the Danubian countries, Argentina, and the Union of South Africa from November 1 to the latest dates available amount to 111,391,000 bushels, a decrease of 14.8 per cent from the shipments during the same periods of the preceding year.

### SEED WHEAT AVAILABLE FOR DISTRIBUTION

The Missouri-Illinois Soft Wheat Crop Improvement District was organized on May 28, 1929, in a tentative way for the purpose of improving the quality of wheat sown in the states represented, and while not permanently organized at that time the officers of the organization succeeded in securing 20,000 bushels of selected seed wheat, most of it certified wheat, for distribution in the two states last fall. Field inspection and reports coming to the director of the organization are very pronounced as to the quality and yield of the wheat thus distributed. The wheat was planted in an orderly manner.

J. L. Grigg, director of the organization, through the courtesy of KMOX, St. Louis, announcing over the radio for four weeks: First week, the types of wheat to sow; second week, smut prevention; third week, garlic eradication; fourth week, observance of the Hessian Fly free date.

Seed wheat for distribution will be available this fall and can be obtained by addressing J. L. Grigg, director of the Missouri-Illinois Soft Wheat Crop Improvement District, at Sparta, Ill.

Full co-operation has been carried on between the organization working in conjunction with the University of Illinois, the University of Missouri, and the local county farm agents.

**FIRES** of incendiary origin in grain elevators and flour mills of the United States cause a loss of around \$1,000,000 a year



## ► What Type of Storage Is Best for ► Combined Wheat?

Some Answers to This Question Suggested From  
State Experiments in Hays, Kan.

By F. C. FENTON

**D**URING the past summer experimental work on wheat storage was intended to answer two main questions. First: What type or kind of storage bins is most satisfactory for the storage of combined wheat? Second: How can damp wheat be handled so as to be free from loss due to damage in storage?

Much has been done during the past few years on the drying of grain by artificial heat. There is no doubt whatever about the success of this method of drying damp grain. By blowing heated air through a moving column of grain the moisture can be removed quickly and without damage to the grain. This method of drying is being extensively used at the terminal elevators. Batch driers have not been very successful and blowing heated air through a bin of grain has tended to create local heating and consequent damage. A really successful drier for farm conditions has not been built up to the present.

It seems doubtful whether any artificial drier will ever come into general use on Kansas farms. Such equipment is costly and likely to have a high rate of depreciation. The damp-wheat problem is looked upon as an emergency problem, which is likely to recur perhaps once every four or five years, rather than one to be prepared for each year. The wet harvest season usually comes on without any advance warning and will find most farmers unprepared to dry wheat by artificial means. But if the damp-wheat problem can be solved by the use of equipment which is used every year in handling the normal crop there may be some chance that a majority of the growers would be benefited by such methods.

In carrying on these storage experiments, 11 grain bins of approximately 500 bushels' capacity were secured and erected upon the Fort Hays Experiment Station grounds. These bins were loaned or given to the college for the use in the experiments. The bins included two wooden bins of the design widely advertised by a lumber manufacturers' association. One of these bins was lined with Celotex wood fibre composition furnished by the manufacturers. There were also three concrete bins, two of concrete stave type similar to silo construction, and one square bin made of concrete boards with a wall five inches thick. There were six steel bins, two of which had ventilated side walls and a large central ventilating flue, on top of which was mounted a revolving suction cupola. The other four were tight-wall steel bins of the type very commonly used in Kansas.

Six of the bins were filled with a tubular grain elevator and arranged alongside an ear-corn drag conveyor which pulled the wheat back to the elevator to be re-elevated into another bin. The other five bins were filled by a blower elevator operated by a five-horsepower motor. This blower had a special attachment by which wheat could be taken from one bin and blown over into another.

The bins were equipped with a system of resistance thermometers, four or five in each bin, so that interior temperatures of the wheat could be quickly and easily read. From the meteorological data which is taken at the station there was available wind velocity and direction, temperature and humidity readings. A moisture-determination apparatus was set up at the station so that moisture determinations could be quickly run and the results known. Composite samples for moisture determinations were taken from each load of wheat, and from the bins each time the wheat was moved from one bin to another.

At the time the bins were filled, samples of wheat were placed in porous sacks and buried in

the bins. When the wheat was moved these sacks accompanied the wheat to the new bin. These sacks of wheat, together with additional samples taken at the beginning and end, furnished the basis for the milling and baking tests. These samples were also judged by the Federal Grain Inspection Department and graded as market wheat.

It was our intention to fill nine bins with damp wheat, wheat that would furnish a storage problem, leaving two bins empty for moving wheat from one to another. But when the harvest got under way the weather was hot and dry and the wheat dried out so rapidly that we soon had no damp wheat available. Wheat from the windrow contained 18 per cent moisture in the morning, but by four o'clock it was down to 14 per cent. Our dampest wheat and that which caused the most trouble in storage was secured by straight combining from a field where the low-land wheat was still green.

Since the experiment station furnished the wheat and did not care to lose any by damage, the wheat was moved and cooled whenever a dangerous temperature was reached. This temperature was thought to be around 115° F., and so whenever the wheat temperatures approached 115° in any part of the bin the wheat was moved.

Before discussing what happened in these different bins when they were filled with wheat, it might be well to discuss briefly the cause of heating in stored grain. There seem to be some points in the causes of heating which are imperfectly understood. Wheat is not a mass of inert material, but rather a large number of living, breathing organisms. Each grain of wheat respire or breathes, and with this breathing gives off heat—carbon dioxide and water. The seat or source of this respiration is the embryo or germ of the wheat, and oxidation of the sugar in the germ creates the heat.

Heating of a bin of wheat is evidence of too rapid respiration or breathing on the part of the individual kernels of wheat. Respiration speeds up as the moisture content of the grain increases, but the rate of increase is not uniform. Below 15 per cent moisture content the rate of respiration is fairly low, but it is three times as rapid at 16 per cent as at 15 per cent, and 12 times as rapid at 17 per cent as it is at 15 per cent. This rapid increase in the rate of respiration when moisture content goes above 15 per cent explains why 15 per cent is often given as the danger point for the moisture content of combined wheat.

The temperature of the wheat, also, has a tremendous influence upon the rate of respiration. The rate of respiration increases with the rise in temperature, slowly at first, but after 35° C. (90° F.) is reached it increases faster and jumps very rapidly from 45° to 50° C. (115° to 125° F.). At temperatures above 55° C. (130° F.) the wheat is burned, the germ killed and the respiration stopped.

In our experiments the worst example of heating grain was in the concrete-stave bin. In fairness to this bin as a storage unit it must also be said that the wheat placed in this bin was in the worst condition. The wheat averaged 16.2 per cent moisture, made up of a mixture of green berries from the low land and very dry grain from the higher ground. This wheat went into the bin on July 3 at an average temperature of 105°. In five days it had reached 125° in one portion of the bin and the entire contents of the bin were in critical condition. This wheat would have been a total loss if left undisturbed. It was caked so hard that it would stand up vertically in the bin and had an odor resembling fermenting silage. The weather at this time was very cool, and it was interesting to note that

the wheat within eight inches of the wall was cool. It was also very wet, as though some condensation was taking place on the cool wheat. This wheat was moved by a blower elevator over into a steel bin and then returned to the same bin. This moving cooled it down to 89°, from where it increased gradually up to 120° just 20 days later. It was moved a total of six times during the summer, with the result of lowering the moisture content to 14 per cent. The wheat was graded as No. 1, although there still lingered a slight sour odor, due to the early heating.

The first wheat harvested was placed in the ventilated steel bin which had a large central flue and a suction cupola on top. This wheat averaged 16 per cent moisture, including one load which contained 18 per cent. The temperature of the wheat was about 92° when placed in the bin, and this temperature showed a gradual decline to about 70° when it was removed in September. This wheat was not moved, because it did not heat, and the grain appeared to be in perfect condition at the end. There was no spoiled wheat in any part of the bin.

In every case the tight-walled bins, either of steel or concrete, seemed to heat more than those with ventilation. The wooden bins also seemed to keep the grain in better condition than the steel or concrete, although no excessively damp wheat was stored in them. The case of the insulated bin is interesting because of the uniformity of the temperature of the wheat. Wheat put in this bin at an average moisture content of 14.4 per cent and a temperature of 95° was still at 92° on September 1 and had not heated at all. Wheat of a similar moisture content stored in the square concrete bin at 96° had to be moved twice to prevent damage. It had been up to 115° on two occasions and was still 98° on September 1. It is our opinion that insulation may be a valuable factor in preventing damage in stored wheat. The heat of the sun in August shining upon the steel bins seems to be a definite aid in starting the heating action.

Our experiments also seem to indicate that well-ventilated steel bins are much safer than tight-wall steel bins for the storage of damp wheat. It may also be that the ventilated wooden bin is a better type than any of the others, but our tests of this year did not prove this because we had no damp wheat in the wooden bins. To store damp wheat safely in concrete bins the farmer must be able to move the wheat in order to cool and dry it. In damp-wheat years wheat stored in any kind of bin is likely to need moving.

### PROPOSE DANUBIAN GRAIN POOL

Tentative consideration by governmental and trade agencies of Hungary, Yugoslavia, and Roumania looking toward the joint marketing of export grain from the Danube area is reported in a recent communication from William A. Hodgman, American commercial attache at Budapest. Proposals of this character some months ago by Dr. Elemer Staub, director of the Hungarian Agricultural Export Institute, Budapest, have been followed by the organization of the Yugoslav Grain Export Syndicate by the parliament of Yugoslavia. For this syndicate or institute, incorporated as a limited company, a share capital of 30,000,000 dinars (\$528,000) has been authorized, 90 per cent of which may be supplied by the state. The ministers of agriculture, commerce, and communications will be represented in the board of directors and exemption from state and municipal taxes has been granted. A government commissioner will supervise its operation. The organization of an institute along similar lines is reported under way in Roumania also. The three institutes (Hungarian, Yugoslavian, and Roumanian), if present plans are followed, will later take up negotiations with each other for the purpose of forming a central organ or export agency. The slogans, "A common price front", or "A common front of offers", perhaps best express the underlying idea.



# "Check . . . and Double Check"

*As Applied to Grain Receipts From Country and Terminal Points  
by Chicago Inspection Department*

By ROBERT A. CRANDALL

THE Chicago Board of Trade, originally an organization composed of 82 middle western merchants and business men loosely banded together to form a market for the farmers' grain, has prospered until today it is the most highly specialized and efficient agency of its kind. From a rather indefinite foundation in 1848 when the venture—the first of its kind in America—was still in the experimental stage, it has grown to include many branches or departments, each of equal importance in carrying forward the business of the exchange.

Most of these departments, which have made the Chicago board the world's largest and most important primary commodity market, were organized in the early part of its history, or before 1870. They include the weighing, quotation, securities, transportation, publicity, and grain sampling and seed inspection departments.

The state took over the inspection of grain in 1871 and in 1904 the board organized a department of grain sampling and seed inspection to both supplement this service and act as a check upon it. And like the board of trade itself, this branch has increased in size and importance and now a staff of 40 employes is necessary to keep up with the carloads of grain on track which must be sampled as soon as possible and the findings sent to the

huge market like Chicago it can readily be seen that they are constantly "on the jump."

The laboratory is located on the eleventh floor of the new Board of Trade Building and occupies a fair-sized portion of the northwest corner. Here under the glare of high-powered daylight lamps grain is subjected to exhaustive tests to determine whether it should be graded No. 1, 2, 3, or 4.

Twenty sets of six-compartment Brown-Duvel moisture testers are in use. The method of finding the moisture content of the grain is quite simple

grain grading was as superintendent of one of the Rosenbaum Bros. elevators in Chicago, a position he held for two years.

Mr. Noble is a firm advocate of fair play and I believe that anyone who practices it as conscientiously as he deserves such a name as his. An incident that he related to me recently brings out this point quite clearly.

While driving through Blue Island—that's his home town—one evening, Mr. Noble noticed an unusually attractive sport roadster containing a young couple coming toward a traffic light at a moderate rate of speed. Just as the roadster passed the corner the lights switched from green to red. Naturally, Mr. Noble thought little of the incident at the time, but it happened that while driving home he chanced to pass the local police station as any good alderman might—for Mr. Noble has found time to take an active part in civic as well as grain activities—and saw the same roadster parked in front of it.

His curiosity aroused, he entered the house of justice and found the same young man whom he had seen in the car, arraigned for "running" a traffic light. Inquiry disclosed that the charge was based on the incident which Mr. Noble had seen, so right away his sense of fair play flared up and he informed the desk sergeant that unless the



THE SAMPLING ROOM

members of the exchange to whom the grain has been consigned.

The Chicago inspectors are very thorough in their tests and are not satisfied with one or two samples from each car, but usually take as many as four and five, thus assuring a more accurate report. After making the tests, a small paper sack, on which is written the number of the car from which the grain is taken, the name of the railroad, the test weight, and any remarks the inspector cares to make, is partially filled with sample graded grain and sent down to the trading floor. Here the report is checked with that of the inspection department at the point of origin (provided an inspection was made) and if any question arises the grain is referred to the Federal Grain Inspection Department which then makes its own examination, its findings being final.

The board of trade inspectors have no official connection whatsoever with either the Federal or state authorities who maintain separate inspection departments in Chicago as well as in other terminal points throughout the country.

Accuracy, efficiency, and speed are the three main requirements in grading grain and the Chicago inspectors observe them to the letter. With the many thousands of cars graded annually at a



JAMES A. NOBLE, DEPARTMENT HEAD

and consists of heating whole grains in a mineral oil having a flashing point much above the boiling point of water, then condensing the water with distills off, and collecting and measuring it in a suitable graduate. The method is so simple that tests can be made by any careful worker who is



THE BROWN-DUVEL MOISTURE TESTERS

able to follow instructions. A single moisture determination can be made in 25 to 30 minutes and with a six-compartment tester, six tests can be made in approximately the same time.

The entire inspection department is under the management of James A. Noble, a powerfully built man of advanced middle age standing over six feet in height and topping 200 pounds. He is unusually capable and during his decade as head of the department (he assumed his duties in 1920) it has made rapid strides forward.

Mr. Noble has always lived in the Chicago area, being born and raised in Breeman Township, Cook County, Ill. He has spent 42 years of his life in the grain business and all but 12 have been as a grain inspector. Prior to joining the board of trade staff he was in charge of the state inspection bureau. His one major position not connected with



ERNEST HEERLEIN (left) AND HIS BROTHER, ANDREW

charges against the young couple were dismissed pronto he would make things uncomfortable for those responsible for the arrest. So the desk sergeant immediately tore up the arrest slip.

While this may seem like an unimportant incident to some, it is a good example of Mr. Noble's determination to have justice prevail. He practices this policy in his business and those under him have found that hard work and conscientious labor bring their reward.

Mr. Noble's assistant is a lively young fellow named Ernest Heerlein, who has been with the department since 1911. He has a brother, Andrew, working with him who joined the organization in 1914. They form an efficient pair of workers for they believe in doing a thing well.

The distinction of being the oldest employe goes to Robert Hodson, who joined the department at its inception in 1904. Just how old Mr. Hodson is might constitute the nucleus for a debate for no one seems to know aside from Mr. Hodson and he appears disinclined to tell.

The office staff consists of Milton McKinney, James Burke, Ernest Heerlein, Miss Helen Broderich, and Miss Ruby Woods. Here in the office the air of efficiency mingled with good fellowship is felt, just as it is throughout the entire department, and one cannot help but feel that it is the spirit of a "noble" man pervading his associates.



# Facing the Facts

## Of Over-Production in Wheat and a Suggestion as to the Remedy Which Must Be Accepted

By ARTHUR M. HYDE, United States Department of Agriculture.

**J**UST now the price of wheat is disastrously low. The cause of present low prices is plain. Year after year, farmers have gone on expanding their acreage, with consequent cumulative increases both of domestic and world stocks of wheat. There are other elements in the farm problems. Taxation, orderly marketing, diversification, and land use are some of them. I shall not discuss them here. When production is so clearly out of balance with the market, and a surplus is continuously piling up, there is no need to hunt for or to discuss other factors of the price depression.

The world wheat acreage is today 42,000,000 acres larger than it was before the war. The American share of that increase is 14,000,000 acres or one-third of the total. These figures do not include Russia, which, before the war, was the world's largest exporter of wheat. Production has for the last seven years outrun demand by an average of 43,000,000 bushels annually.

The world carryover for July 1, this year, indicates a decrease of 100,000,000 bushels. On its face, this fact seems encouraging. But world production in 1929-30 was 514,000,000 bushels less than in the previous year. If world consumption had held its previous high level, the carryover should have been materially reduced. The past year has proved, however, that consuming countries not only can, but have, reduced their consumption of wheat. By high tariffs against our wheat, by forcing the consumption of substitute cereals and starches, and by encouraging the expansion of their own acreage they reduced their importations by 237,000,000 bushels below the level of 1928-29. The smaller 1929-30 world production was due to short crops in Canada and Argentina. This shortage cannot be expected to continue. Both countries have large acreages and are expanding their acreage. The persistence of this large world carryover in the face of a lower world production is a stubborn fact, the importance of which must not be ignored.

Thus we have increased acreage, increased production and made cumulative additions to both the American and the world carryover. As a natural and inevitable result, prices have fallen to ruinous levels.

Many farmers do not like the law of supply and demand. To some it appears to be a monstrous fiction ruthlessly created by buyers and dealers to beat down the prices of farm commodities. But, like it or not, there it is. Nobody invented it. It is merely a statement of the way in which buyers and sellers the world over, and ever since the world began, have acted and will act under given conditions. It is bedded deep in human nature. It applies to every product of human toil, from wheat to automobiles. If the seller has too much of a given commodity, he gets panic stricken and throws some or all of it on the market for what it will bring. If the buyers know that the supply is too large, they hold off until they think the bottom has been reached. The normal interplay of these human, selfish motives and reactions of buyers and sellers is called the law of supply and demand.

It is claimed that, since all farm products are ultimately consumed, there is never any surplus of farm products.

It is true that all foods and fibers produced on the farm are consumed—somewhere, sometime and at some price. Under the weight of a burdensome surplus, the price falls. At each successively lower price level, new outlets and uses for the product can be found. Thus ultimately the price drops until the surplus disappears. But the farmer cannot live unless the price equals his cost of production plus a

profit. When an unwieldy surplus burdens the market the crop must sell for whatever the cheapest user will pay. Under such conditions the cost of production has nothing to do with the price.

In a nutshell, then, the situation is this: There are 40,000,000 more acres in wheat than there were before the war. For seven years, the world has produced an annual average of 43,000,000 bushels of wheat more than it consumed. Our American carryover has piled up to the record height of 265,000,000 bushels. The new crop threatens to be larger than the last. The world price burdened by that huge surplus will be governed by the amount the cheaper users will pay. Our American price, so long as we produce for export, will be governed by the world price. Prices are disastrously low.

The case is plain enough. The vital question is, what shall be done about it?

Several programs are, or have been, proposed. Some of them are based upon the theory that part of the crop which is consumed at home should be sold at the world price, plus the tariff, and that the domestic surplus should be dumped on the foreign market for what it will bring. One means proposed



SECRETARY HYDE

for doing this is the so-called equalization fee, by which the loss on the dumped surplus would be borne by the farmers. Another is the debenture plan by which the loss would be borne by the United States treasury. Other plans for doing the same thing are proposed. They seek the same objective of tariff benefit, and involve the same program of dumping the surplus.

Another suggestion is that the Federal Farm Board should purchase on the market a large volume of wheat, say 100,000,000 bushels, and thus increase the price.

If it were a situation, suddenly created, and temporary in character, the powers of the board in recognizing a stabilization corporation, to deal with a surplus might legitimately be brought to bear. But it is not a sudden emergency. It has resulted from continuous over-production and consequent cumulative increases in the supply of wheat.

The cure for this condition is not to be found in the purchase of large amounts of wheat by the stabilization corporation. Such a course would not reduce the visible supply of wheat by a single bushel. It would not reduce world or domestic stocks of this wheat by a single pound. It would, on the other hand, gather into one mass, a vast

amount of wheat, which, always present, and all the more threatening because massed under one control, would hang as a dead weight over the market and prevent the free rise in prices which we fully expect will normally occur.

To test the effect of such a purchase, let it merely be asked—what would the stabilization corporation do with it? That question is present with us now as to wheat already owned by the corporation—but unanswered. The corporation cannot dump it upon the domestic market without entirely dislocating the existing marketing and distributing machinery of the country, and it will not do so. Destroying it is unthinkable.

Nor can it be dumped on the foreign market. Even if the prohibitive tariffs (such as Germany's 97 cents a bushel, France's 85 cents, Italy's 86 cents) could be met and overcome, it would destroy for present purposes the foreign outlet for the crop now coming to market. It would inevitably reduce the world price. But more final and forceful than either of these considerations is the fact that every foreign nation has a farm problem of its own. Every wheat importing nation is trying to stimulate its own production and to increase its own independence of imports. Consequently, many of them already have an anti-dumping law.

By these laws, whenever any nation attempts to sell, in the market of another, any commodity at a price less than it is sold at home, a tariff equal to the difference or equalization fee be immediately effective. Thus would a debenture or equalization fee be immediately checkmated. In some cases, the penalty is even more drastic. This is the final and insuperable obstacle to any scheme of subsidy which contemplates dumping the surplus at a price lower than the crop sells for in the home market.

We in the United States properly protect our own markets and our own producers from the demoralization of foreign dumping by just such a law. What would our American wheat farmers say if Argentina or Canada attempted to dump on our markets at prices lower than they accepted at home? Even if there were no anti-dumping laws, all schemes which are based on dumping the surplus at a loss, and making the loss back on domestic sales, are fatally defective.

The equalization fee plan and the debenture plan are, at bottom, subsidies.

The only legitimate object of a subsidy is to increase production, and greater production is the inevitable result. But we are already over-producing. That is the cause of our distress. To stimulate more production by subsidies of any kind, or under any name means a larger surplus, a further depression of the price and increased distress at home.

I can understand how a man might be such a glutton as to be happy in "digging his own grave with his teeth." I can see how an occasional honey bee might become so intrigued by the sweetness or the stickiness of its own product as to fall bodily into the mass and be "embalmed in its own honey." The spectacle of farmers working from daylight till dark and increasing their expenses in order to create a vast surplus in which to inter themselves and their families would be easy to understand if it occurred only occasionally. But it is a matter of annual recurrence. Each year the mountainous surplus is piled higher. Each year the depression goes lower. It is time we understand that the cure for over-production is not more production.

Proponents of the equalization fee and of the debenture argue that these are devices for equalizing tariff benefits. The underlying objective of the tariff is to protect the home market for home pro-



ducers, to keep our own people employed and to avoid measuring American standards of living against those of the cheapest foreign labor.

Agriculture has the opportunity to obtain tariff benefits. The Government cannot and does not attempt to force tariff benefits upon any industry. All it can do is to provide the rate of duty. It is then the province of each industry to accept or to decline the protection. If its production is less than the domestic market, it can get the benefit of the tariff. If it elects to produce for and to sell on the world market, it loses the protection of the tariff. Witness the automobile industry. The tariff merely offers the protection—take it or leave it.

In all this agriculture is no exception. For wheat, we have a large measure of tariff protection offered us—42 cents a bushel. We are already over-expanded. We have overproduced, and are over-producing. If we want the benefit of that 42 cents a bushel, all we have to do is to bring our production down to domestic needs. It is there for us—take it or leave it.

The answer to farm distress caused by over-production is not more production. More production means merely more problems, lower prices, and greater disaster. Anything which stimulates production, call it equalization fee, debenture or what not, means larger and larger surpluses coming more and more into competition with foreign surpluses, produced on cheap land by cheap labor. This is not tariff equalization. This is a cheap chimera of political promise which defeats its own ends. The only answer to over-production is less production, balancing our crops against market demands, producing only such an amount as we can sell at a price which covers cost of production plus a profit.

I hold another objection to both the equalization fee and the debenture. They are attempts to write political answers to economic questions. The problems of American agriculture are not political problems. The problems of the farm are economic, and if solved, will be solved in the realm of economics. After 10 years of blind following political will-o-the-wisps, only to find ourselves bogged down at the end, it is high time that we forget political schemes, and political remedies and meet plain economic problems on an economic basis.

True, the Federal Farm Board was created by political means—but it is designed to take farm problems out of the realm of politics and find solutions in the realm of practical economics. The board is designed to help American agriculture to help itself. True also the tariff was enacted by political agencies, and it is the best tariff agricul-

ture ever had. But agriculture does not have the full benefit of the tariff, and never will have unless agriculture brings itself within the protection which the tariff wall sets up. To get that protection agriculture must bring its production within the domestic requirement.

The Lord giveth and the Lord taketh away. So runs *The Book*. The same power which can grant subsidies can take them away and leave the industry stranded. In controlling production agriculture has an economic remedy which is not only effective and certain, but one which cannot be repealed by any act of the legislature.

How? By regulating production of farm products to the limits of market demands. By balancing production and, therefore, supply against and within probable demand. By limiting acreage planted to such as will under normal conditions produce all the foods and fibers as are needed, plus a reasonable carryover.

But someone objects, you cannot control production by controlling the acreage. The seasons, weather conditions, storms, insect pests, plant diseases, not the acreage, they say, control farm production. It is perfectly true that the production of any piece of land varies with the season. Forty acres of wheat may produce 1,000 bushels of wheat during one year and 100 bushels the next. But that is local. Take down the statistics on crop production for the whole country and average the production per acre over 25 years. You will find the yield per acre for the whole country to be surprisingly uniform.

On wheat, for example, during the last twenty-five years, the average yield per acre has been 14.5 bushels. The highest yield was in 1915 at 17 bushels; the lowest in 1916 was 12.2 bushels—a variation above average of only 17 per cent and below average of only 13 per cent.

We now have a fairly accurate knowledge of market demands. We have also an average yield per acre which is substantially accurate. If the acreage be limited to such an area, as under normal conditions will bring production within the market demand, we shall be on a sound actuarial basis. A surplus due to favorable seasons would not be of ungovernable proportions. It could be carried over. In such a case the Federal Farm Board could render a real service.

Acreage is therefore the basis of any program for bringing agricultural production within the operation of the law of supply and demand.

Not only would the reduction of wheat acreage have a favorable effect upon next year's prices, but

it would materially increase the price of this year's crop. When the country understands that the farmer is going through with a definite program of reduction, the market will be relieved of the continuing threat and there will come an immediate increase in the price of the present crop. Vigorous, co-operative action among farmers to decrease acreage for the coming year, should increase the gross value of the present wheat crop by a sum much larger than the loss on the reduced acreage, even if such acreage lies idle.

But you say, shall we abandon scientific methods, scrap our machinery and let our lands lie idle while interest and taxes eat them up? Certainly not. Let us not forget that scientific principles and mechanical farming should apply to the method and the per acre cost of production. By limiting acreage it is possible to use the best methods and also to regulate the size of the crop. Let us produce what is necessary as cheaply as possible, but let us limit the amount of that production to the market needs. Profit, not surplus products, will determine prosperity. Interest and expenses are met out of surplus profit, not out of surplus production. Profit, not quantity of crop, determines the standard of living, and supports civic enterprises.

If all the wheat land in America were owned by one man, the problem would be absurdly easy. That man would plan his production. He would limit his crop to the amount which the market needs. He would reduce his acreage. He would by no means abandon scientific methods or the use of machinery. He would produce wheat as cheaply as possible but he would hold the volume of production down until the market catches up; until his wheat could be sold at a price which would pay him a profit.

Of course, the American wheat acreage will never be owned by any one man. But the problem is the same as if it were. And the solution is the same. The millions of American farmers who do own the wheat lands have the same reason for applying that solution. That is, they have the same reason as the one man would have, except that their reason is multiplied by the needs of the millions of farmers.

Those millions of families are now engaged in destructive competition with each other. Each is engaged, by his surplus production, in beating down the price of the commodity for all. Each family strikes something off of the living standards, the educational opportunities, and the welfare of every other. Yet they are not enemies. They are neighbors and friends, having the same interests, the same ambitions, the same rights to an American opportunity and an American standard of living.

## RICE: SECOND ONLY TO WHEAT

By FELIX T. POPE

Rice is the second most important human food crop produced throughout the world. It is exceeded only by wheat (corn not being considered as it is used principally as an animal food) and is the principal article of diet for more people than any other article of food in the world. It is also one of the most ancient foods known, having been the standing article of diet in Oriental countries for many generations. It is mentioned in Chinese history as far back as 2800 B. C.

The first attempt to raise rice in this country, according to Dr. G. T. Surface, of the American Geographical Society, was made in Virginia by Sir William Berkely in 1647, "but the inferior adaptation of climate and the phenomenal field and market success of tobacco repressed the exploitation of rice, and it remained for South Carolina, a half century later (1694) to realize more encouraging results by planting white East India rice accidentally obtained from a stranded Madagascar ship. Rice was grown in South Carolina and about 1725 began to assume commercial importance, the exports for that year being 9,212,000 pounds." The expansion of the industry was rapid from 1725 to 1740, but from 1740 to 1840 the increase was much less.

The industry has steadily declined in South Caro-

lina since the Civil War. There are now only four states in the Union that produce rice in any appreciable quantities—Louisiana, Arkansas, Texas, and California; Louisiana producing about 45 per cent of the total crop. The census of 1880 gave Louisiana a production of 23,000,000 pounds (818,000 bushels).

It was not until 1912 that rice production in California became important as a commercial crop. Since that year the increase has been fairly steady, having increased from 3,000 bushels in 1910 to 8,171,000 bushels in 1928; the 1929 crop, however, was extremely short, being only 6,222,000 bushels.

The rice grown in California, by the way, is known as the Japanese variety, having been introduced originally from Japan, and up until 1928 a very large proportion of the crop was exported to Japan and Hawaii; Japan, however, has had unusually large crops for the past two or three years, and the Californians have been forced to find other markets. California rice is now being exported to most European and South American countries.

Rice production in the United States in 1900 was valued at \$6,830,000; in 1929 it was worth at the farm \$39,346,000. While the production has been steadily increasing in the United States, consumption until recently has been on the decline, having fallen from 8.1 pounds per capita in 1910 to 5.7 in 1927; in 1928 and 1929, however, due to an extensive advertising campaign by rice growers, it has been increasing slightly, the 1929 figure being 6.25

pounds per capita—the producer, however, has to depend on the export market to dispose of at least one-half of his output.

The United States consumes less rice per capita than any of the important European countries, the average per capita consumption for the years 1927, 1928 and 1929 being: Great Britain 6.20, France 8.90, Belgium 11, Spain 14.50, Germany 11.20, Italy 13.80, and United States 5.75. It would require an increase of less than five pounds per capita to consume our entire production.

Exports of rice have kept pace with production, having grown from 64,000,000 pounds in 1900 to 654,874,000 pounds in 1929 (including non-contiguous territories). Imports on the other hand have more or less steadily declined as production has increased in this country. In 1900 we imported nearly twice as much as we exported, but in 1929 our imports were less than 6 per cent of exports.

Porto Rico has always been the largest purchaser of United States rice, taking an average of about 190,000,000 pounds a year. Hawaii is probably our second best customer, taking about 75,000,000 pounds a year. Japan in the past has been a very large purchaser of California rice.

Japan, however, is one of the large rice-producing countries of the world, and in the years when its own crop is large outside purchases are small; on the other hand, a partial crop failure makes it an enormous factor in the world market.



## ► "Dry Ice" and Ethylene Oxide As ► Grain Fumigants

By E. A. BACK, R. T. COTTON, H. D. YOUNG, and J. H. COX, U. S.  
Department of Agriculture.

*Editor's Note:*—"Carboxide" is a mixture of ethylene oxide and carbon dioxide ("dry ice"), in the proportion of one part ethylene oxide to nine parts carbon dioxide, under pressure in a cylinder. The commercial use of a fumigant in this form requires that the wheat storage bins be equipped with pipes to introduce the gas into the grain at different levels of storage. According to preliminary tests by Government investigators, the method proves to be excellent for exterminating weevils, but many details will have to be worked out before it will be a commercial success.

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FOR several years workers in the United States Department of Agriculture have been searching for a fumigant suitable for use in the treatment of stored grain. On account of fire hazard, excessive cost, ineffectiveness, toxicity to man, or deleterious effect on grain, some fumigants in general use up to the present time have not been entirely satisfactory and the operators of grain elevators have had to resort to handling the grain in order to keep it in condition.

During the past year a method of using ethylene oxide in combination with carbon dioxide has been developed that appears to be admirably adapted for the fumigation of grain in elevator bins. There is no fire hazard when the fumigant is applied as described in this paper, and the method of application is simple. In addition the fumigant has no harmful effects upon the milling and baking qualities of the grain, leaves no odor, is not expensive, can be handled without danger to the operator, and when properly applied is 100 per cent effective against the grain weevil even at winter temperatures.

The insecticidal value of ethylene oxide was first



ETHYLENE OXIDE (IN CYLINDER) BEING WEIGHED INTO PAILS OF "DRY ICE"—HAND PUMP FORCES MIXTURE

discovered by Cotton and Roark, who published an account of their experiments with it in 1928. They found that it was highly toxic to insects and particularly well suited for the treatment of food-stuffs. At ordinary temperatures and pressures ethylene oxide is a colorless gas; at low temperatures and atmospheric pressures it is a mobile, colorless liquid, boiling at 10.5° C. The liquid is inflammable, but concentrations of the gas below 3.5 pounds per 1,000 cubic feet of space are non-explosive.

### FIRST TESTS IN A MILL

The first attempt to use a mixture of ethylene oxide and carbon dioxide for the treatment of grain in elevator bins was made in Toledo, Ohio, in 1929. A large milling concern that had installed equipment for the purpose of pumping a mixture of carbon disulphide and carbon dioxide into their tanks of grain, decided to try the ethylene oxide-carbon dioxide mixture instead. Their equipment consisted of a vacuum tank and pump. The ethylene oxide

and carbon dioxide were drawn into the vacuum tank in the proportion of one pound of ethylene oxide and seven pounds of carbon dioxide. The resulting mixture was pumped into the bottom of the tank of grain. Several fumigations were conducted with this equipment, using dosages ranging from 1.5 pounds to two pounds of ethylene oxide per 1,000 cubic feet of space. The results obtained, though not perfect, were very promising and further tests were planned. It was realized that the equipment used in the Toledo mill was too expensive for practical purposes, and efforts were made to devise a simpler method of introducing the fumigant.

Attempts were made to introduce the fumigant by applying it directly into the stream of grain as the bins were being filled. In one instance the two gases were applied directly from cylinders, the materials being conducted through separate tubes leading into the top of the bin; in the other instance the ethylene oxide was mixed with "dry ice" (solid carbon dioxide) and the mixture poured into the grain as it entered the bin.

The use of "dry ice" as a source of carbon dioxide was suggested by chemists of the company manu-



ONE WAY TO APPLY SUPER-COLD MIXTURE TO GRAIN—SHOVELING IT DIRECTLY INTO GRAIN STREAM

facturing ethylene oxide, and this method has eventually proved to be most satisfactory. In the preliminary tests one pound of ethylene oxide was used with seven pounds of the "dry ice" and the dosage was figured on the basis of two pounds of ethylene oxide per 1,000 cubic feet of bin space. As shown in tests Nos. 1 to 4, this dosage killed from 85 to 100 per cent of the insects in concrete, steel, and wooden bins, some of which were closed whereas others were open at the top. The results of these preliminary tests indicated the necessity for an increase in the dosage. Consequently, in subsequent fumigations the dosage was increased to three pounds of ethylene oxide per 1,000 bushels of grain.

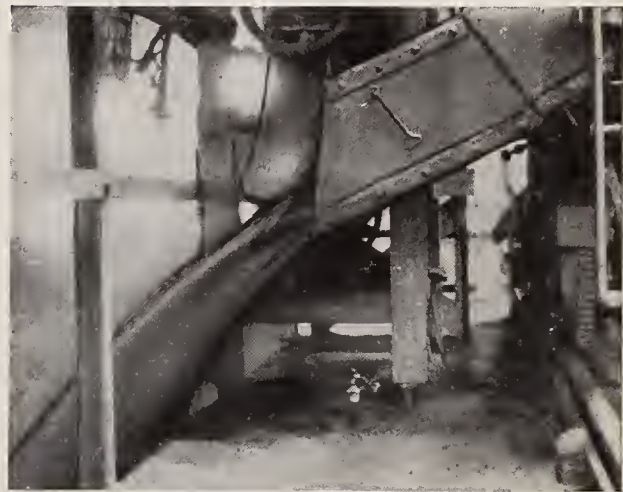
It was also decided to change the mixture of "dry ice" and ethylene oxide from a 7-to-1 ratio to a 10-to-1 ratio, so that the resulting product has a consistency resembling snow rather than being liquid.

Of the many fumigations conducted with the "dry ice" and ethylene oxide 10-to-1 mixture at the rate of three pounds of ethylene oxide or 33 pounds of the mixture per 1,000 bushels of grain, all but two cases have shown a 100 per cent kill, both in the planted test lots of insects and in the composite samples. Of the two exceptions one showed a 98.7 per cent kill and the other a 98.1 per cent kill; two "bran bugs" (flour beetles) were found alive in one trap, and a few weevils were alive in another bag placed directly on the gate of the bin.

In brief, the process of applying consists of mix-

ing together ethylene oxide and "dry ice" in large pails and introducing the mixture into the grain as it is being run into the bin. The mixture is carried down with the grain and is well distributed through it. It soon changes to a vapor that quickly kills all weevil life.

As previously indicated, "dry ice" is really carbon dioxide in solid form. It is a white solid, easily crushed, and has a temperature of 110°F. On exposure to air it slowly changes from a solid to a vapor. For fumigation purposes, a special type of "dry ice" is used that is not compressed so much as the ordinary type. It has the consistency of chalk and is very easily crushed. If necessary, the ordinary "dry ice" can be used. It is delivered in insulated boxes that prevent excessive evaporation. It is prepared for use by being broken into small pieces with a sledge and ice pick and shoveled into pails that will hold about 70 pounds each when full. Since the "dry ice" evaporates at the rate of about 5 per cent by weight a day in the boxes in which it is obtained, it should not be



AUTOMATIC FEEDER FOR "CARBOXIDE" WHICH IS DISCHARGED INTO GRAIN STREAM FROM TRIPPER—FUMIGANT SHOWS AS A LIGHT STREAK ON SURFACE OF WHEAT STREAM

ordered ahead of time, but only after the ethylene oxide is on hand, so that the fumigation can proceed as soon as the "dry ice" arrives. Somewhat more than the quantity needed for the fumigation must be purchased in order to allow for this evaporation. Since "dry ice" has a temperature of -110° F., it should not be handled with bare hands. If carelessly handled it is likely to blister the skin.

The mixture should be applied without delay. It may be applied by shoveling it into the grain stream, or by use of a machine which can be regulated to any speed desired and feeds the mixture into the bin by means of a worm drive.

Eight milling and baking tests were made of lots of wheat before and after treatment with the mixture. No impairment of the milling and baking qualities seemed to result from the use of this fumigant. No odor of the chemicals used was left on the samples tested.

However, germination tests of wheat fumigated on a laboratory scale with ethylene oxide alone, led to the conclusion that its viability was seriously impaired by the treatment. But when wheat in bulk was treated with a mixture of ethylene oxide and carbon dioxide, the germination was found to have been little affected. Germination tests were made with composite samples taken from bins of wheat before and after commercial fumigations with a mixture of ethylene oxide and carbon dioxide. The results of these tests indicate that the fumigation of bulk grain with this mixture does not materially affect its germination.

If small quantities of wheat are fumigated in large containers (where the quantity of fumigant is relatively large in proportion to the quantity of grain) the absorption of ethylene oxide undoubtedly seriously injures the germination. It would therefore seem unwise to fumigate by this method small quantities of wheat intended for seed.

CORN acreage in three European countries is reported at 5,453,000 acres, a decrease of 9 per cent from the 5,995,000 acres in the same countries in 1929.





Published on the Fifteenth of Each Month  
BY

**Mitchell Brothers Publishing Co.**

OFFICE:

Manhattan Building, 431 South Dearborn St.  
CHICAGO, ILL.

A. J. MITCHELL.....Business Manager

New York Representative: E. M. Roberts, 587 Riverside Drive  
Telephone Edgecomb 7172

Subscription Price - - - \$1.00 per Year  
English and Foreign Subscription 1.75 " "

#### ADVERTISING.

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Official Paper of the  
Illinois Grain Dealers Association

CHICAGO, ILL., AUGUST 15, 1930

## TO OIL THE FARM RELIEF MECHANISM

THE Federal Farm Board has spent \$768,000 during the first year of its operation in administering the Agricultural Marketing Act. This cash expense is something distinct, of course, from the half-billion dollar revolving fund being doled out through the board to farmers' organizations as "co-operative loans." It is also separate from the running expenses of the various agencies set up by the board—such as the Farmers National Grain Corporation and the Grain Stabilization Corporation.

In other words, three-quarters of a million dollars has been spent in 12 months just to oil the machinery of "farm relief." The oil is distributed among about 230 employees of the Federal Farm Board.

As a money-spending organization, the farm board is a success, and by the narrow margin of that fact is saved from the stigma of total failure.

## THE NEW RATES

GRAIN rates and transit arrangements will be changed materially for grain dealers and their customers October 1, as a result of the Interstate Commerce Commission report on the western grain rate case. The general effect of the revision is to make one rate applicable on both wheat and coarse grains and their direct products such as flour and meal, for both domestic and export shipment, made exclusively on the rate-break basis through primary mar-

kets from which there are proportional rates, with the consequent elimination from such markets, on shipments stopped there, of transit balances less than the proportional rates.

Rates on wheat and flour are the same throughout the western district, but in some of the territory west of the Rocky Mountains, and on some transcontinental shipments to the Pacific Coast, the rates on flour are higher than on wheat. Free transit privileges are limited to two for milling or other treatment, plus one for inspection. Transit is included in the line-haul rate in all parts of the western district except in some parts of the Northwest.

The prescribed rates represent on the whole substantial reductions. Some of the wheat rates from North Dakota are increased. Coarse-grain rates from North Dakota and Minnesota are increased, from Iowa and Missouri both increased and reduced, and from South Dakota, Nebraska, and Kansas substantially reduced. Substantial reductions are made in the flat rates to the primary markets, to the gulf ports (on both domestic and export shipments), and in the Southwest, the intermountain region, and the Pacific Northwest. Substantial changes, mainly reductions, are also made in the proportional rates from the Missouri River markets to Minneapolis, Duluth, Chicago, and St. Louis, from Minneapolis to Duluth and Chicago, and from Missouri and Mississippi River markets to the Southwest and the Mississippi Valley, including Memphis and New Orleans; also in the export rates from the Missouri River, Chicago, and St. Louis to eastern and Gulf ports.

The high points of the report may be summarized as follows:

1.—Rates and practices affecting the transportation of grain and grain products throughout the western district, from that district to all ports of export, and from Lake Erie ports to Atlantic ports (as part of a lake-and-rail transportation) reviewed under the Interstate Commerce Act and the Hoch-Smith resolution, and a general readjustment required.

2.—Dual system of proportional rates and transit balances outbound from primary markets results in undue preference of shippers under the transit balances and undue prejudice to shippers under the higher proportional rates. Rates through primary markets required to be made exclusively on the rate-break basis of flat rates into the markets and proportional rates beyond, and overhead through rates less than the market combination required to be canceled.

3.—Reasonable through rates prescribed and when made though the primary markets from which there are proportional rates, broken back into combinations of flat rates into the primary markets and proportional rates beyond.

4.—Relation of proportional rates from Omaha, Kansas City, and St. Louis to Memphis and New Orleans and from Kansas City, Omaha and Sioux City to Minneapolis and Duluth substantially revised.

5.—Requests of Wichita, Kan. and Grand Forks, N. D., for the prescription of outbound proportional rates denied.

6.—Rates on coarse grains are now the same as on wheat west of the Rocky Mountains and in Illinois, and 90 per cent of the rates on wheat in the remainder of the western district. One rate prescribed for application on both wheat and coarse grains throughout the entire western district and in Illinois.

7.—Rates on grain products, including flour, are higher than on grain from which the products are made in some of the territory west of the Rocky Mountains, and on some transcontinental shipments to the Pacific coast and are the same as on the grain from which the products are made throughout the remainder of the western district. One rate prescribed for application on grain and grain products throughout the entire district.

8.—Bran, shorts and middlings move out of transit points on the transit balances of through rates on wheat in some instances and on the transit balances of through rates on coarse grains in others. The one basis that is prescribed for

both wheat and coarse grains will correct existing inequalities in this respect.

9.—Mixed feeds containing articles other than the direct products of grain are not entitled to move out of primary markets at proportional rates, or out of transit points at the transit balances of through rates, applicable on grain and grain products.

10.—Rates on flaxseed prescribed on basis of 112 per cent of the contemporaneous rates on wheat.

11.—Bases of rates on farm seeds revised.

12.—Transit stops without separate charge limited to two for milling or other treatment plus one for inspection, additional stops for other than inspection to be paid for at the rate of two cents per 100 pounds for each stop.

13.—Transit is included in the line-haul rate in all parts of the western district except in some parts of the Northwest. The rates prescribed will include transit in the line-haul rate in all parts of the western district.

14.—Transit tariffs should be thoroughly overhauled and present grants of transit, out of line, and back hauls beyond the point of reasonable competitive necessity eliminated.

15.—Transit regulations should be published in transit circulars separate from the tariffs of rates in connection with which the regulations are to be applied.

16.—Storage in transit of grain products not still in the process of manufacture should be discontinued.

17.—So-called unit rule for mixed-carload shipments found to be unlawful.

18.—Request of Minneapolis for transit under the rate to Duluth from North Dakota and Montana, from which the rates to Minneapolis and Duluth are the same, based on the location of Minneapolis directly intermediate to Duluth on the route of the Chicago, Milwaukee, St. Paul & Pacific, denied, and the combination of flat rates to Minneapolis and the proportional rate beyond found to be the proper basis of charge under the rate-break system of making rates through primary markets herein prescribed.

19.—Previous finding that the rates to Portland, Ore., should be 10 per cent lower than to Puget Sound ports from points south of the Snake River in Washington and Oregon affirmed.

20.—Re-adjustments required in numerous specific situations presented upon this record and by formal complaint and investigation and suspension proceedings consolidated therewith.

21.—One basis for both export and domestic shipments prescribed for application to Texas Gulf ports and north Pacific coast ports.

22.—Export differentials to Galveston under New Orleans from designated areas in Texas, Oklahoma, and Kansas prescribed.

23.—Relation of export rates from St. Louis, Chicago, and Missouri River markets to New Orleans and Baltimore revised.

Complete copies of the commission's findings will be available shortly, and dealers may apply for them through this office. The general effect of the report may be beneficial in that it will retard the current movement of wheat in anticipation of the more favorable rates. But the report must be studied specifically from the angle of dealers in every state if the most is to be made of its multitudinous provisions.

The old Spanish custom of piling grain in the great open spaces along railroad tracks is giving way in Argentina. The first of nine new country elevators, being built in the province of Cordoba, was opened last month. People are coming from leagues around to see what a country elevator looks like, and refuse to believe that such contraptions are common in North America.

An order for 7,000,000 dollars' worth of farm machinery has been received from soviet Russia by the International Harvester Company which Alexander Legge headed prior to his farm relief connection. When these harvesters are put to work in the Russian grain belt to swell soviet grain exports, American grain producers will need, more than ever, someone like Mr. Legge to denounce the middleman and make them forget their real troubles.



## EDITORIAL MENTION

The Government employment census for 1930 shows that 99 1/10 per cent of all workers in Iowa are employed. Even the governor is working hard at wondering if farm relief is what Senator Brookhart cracked it up to be.

The Canadian wheat pool may have to reduce its initial payment from 70 to 60 cents a bushel as a result of Premier Bennett's refusal August 12, to guarantee funds necessary to finance the pool's purchase of the 1930 crop. With 35,000,000 bushels of wheat lying at the Canadian head of the Great Lakes, bankers are beginning to wonder if two bushels of wheat isn't justifiable collateral for a \$1 loan.

The fact that the price of silver has dropped below 35 cents an ounce, whereas its average price in 1926 was over 61 cents per ounce, may not seem to have much to do with the marketing of wheat and flour, but as a matter of fact it has been one of the reasons for large surpluses remaining in the hands of exporting countries. The price of silver has dropped faster than the price of wheat, and therefore, even at today's low wheat prices, the local currency in silver countries like China will buy less wheat than it would in 1926.

An estimate of the average cost of growing wheat in the United States has just been issued by the government at Washington. This cost is given at \$1.24 per bushel, which, of course, is away out of line with selling prices. There must be something wrong with the way agricultural costs are figured by those who make a practice of computing such things. Agriculture would centuries ago have ceased to exist as an industry if the balance sheet worked out for it from time to time by special investigators contained correctly all the items which really enter into the accounts of a man who lives on a farm. It is only on a rare occasion that a computation on some product is made which indicates that even cost can be met, and yet people have continued to live on farms. Men could not possibly survive in any other industry with similar balance sheets. A great service will be performed by the man who can bring into agricultural accounts the items that explain the facts of the case.—*Market News* (Winnipeg).

The heat and drought of July cost Kansas at the rate of about 1,750,000 bushels of corn a day. A corn outlook that was rated at 77 per cent of normal on July 1, slipped gradually but certainly to a rating of 45 per cent on August 1, and had declined to 30 per cent by August 7. This condition allows a potential forecast of 76,164,000 bushels production this year, an average possible yield of 12 bushels per acre on 6,347,000 acres. Last year's crop amounted to 106,802,000 bushels and the 1924-1928 Kansas average is 131,546,000 bushels. Much of this year's acreage can now produce little but forage and silage and very little sound commercial corn

is in prospect. There are counties, however, in the western third, especially in the northwest, that still have very fair prospects because of better rainfall in July, and with reasonably good weather from now on could produce an average crop. The situation this year is very similar to the seasons of 1901, 1913, 1916, 1918 and 1926. In those years the final estimates of yield showed 7, 3, 10, 8 and 11 bushels per acre, respectively. The wheat, oats, barley, and flax crops in Kansas this year have all been very satisfactory. Winter wheat production is now estimated at 154,902,000 bushels compared with a July forecast of 146,688,000 bushels, last year's crop of 137,712,000 bushels, and a 1924-1928 average of 135,180,000 bushels. Final threshing returns were everywhere above expectations. Quality and grade have averaged very high, this year's quality being 95 per cent of a high medium, compared with 85 per cent last year and 89 per cent, the 10-year average.

### CROSS SECTION NOTES ON THIS ISSUE

*Wheat for feed:* Experimental data on this subject on first page of "Hay, Straw and Feed" department, Page 97.

*"Can load boats with 1,500,000 bushels in 10 hours"*—part of the terminal elevator description on Page 77.

*Rice facts:* Page 82.

*Plain language used to delineate the present situation in wheat:* Beginning on Page 81.

*Arbiters of grain grading in their new eleventh-floor headquarters of the Chicago Board of Trade Building:* Page 80.

*"News Letters":* Beginning on Page 78.

*Storage of grain as a research problem:* Page 79.

*Spontaneous ignition hazards in grain handling plants:* Page 78.

*The new grain rates:* Page 84.

*Patents on grain handling devices (illustrated):* Page 107.

*Terminal market news and personalities:* Page 86.

*"Field Seed" department:* Page 108.

*Compressed grain feed for the American poultry trade:* Page 99.

*Latest official reports on the mounting activity in grain markets (Page 92) and feed markets (Page 98).*

Among the newer and safer grain fumigants now officially recognized by the Government, are mixtures of carbon disulphide with materials which are non-inflammable, such as carbon tetrachloride. One such mixture consists of a small proportion of carbon disulphide in carbon tetrachloride, to which may be added a small quantity of sulphur dioxide or other chemicals. Some of these mixtures are relatively free from fire hazard. Another new fumigant is made from ethylene dichloride and carbon tetrachloride. This produces a gas that can be used safely where carbon disulphide would be dangerous. The ethylene dichloride, a colorless liquid with an odor resembling chloroform, is the active ingredient in this mix-

ture. Ethylene oxide, a gas recently developed by the Bureau of Entomology in co-operation with the Bureau of Chemistry and Soils, shows promise of being an excellent fumigant for stored grain when used in combination with carbon dioxide. The carbon dioxide is added to reduce fire hazards, and at the same time increase the effectiveness of the fumigant. Seven parts of carbon dioxide are used with one part of ethylene oxide.

Coarse grain dealings may have to be abandoned by the Dominion pool organization, as a result of the emergency developed in their wheat department. Members of the pool then will be able to sell coarse grains on an open market and partially recoup the losses to be suffered by being bound by pool contracts so far as their wheat is concerned.

The Fisher Building in Chicago, headquarters of the Federal Farm Board's stabilization and farmers' national grain corporations, continues to intrigue us. It is practically across the street from our office, and we spy upon it constantly. Some fine day we hope to see Mr. Milnor, Mr. Legge, (mayhap Mr. Hoover!) sidling in or out, carrying some surplus wheat to or from their tenth floor hideaway. This farm relief building is hard to keep under surveillance. There's an entrance on Dearborn Street, another on Plymouth Court, still another through the building's drug store on Van Buren Street, and several more ways in and out through various shops. It keeps us busy. No one has escaped yet, however, unless one might say that Mr. Kellogg escaped. The only reward for our vigilance so far, came at noon on a recent Saturday. A shabby old fellow staggered right out from the west entrance of the Fisher Building. He was in high spirits, but had only partial control of his feet. By a very circuitous route, he made his way around to the east entrance. Evidently he was expected, for someone in a uniform met him, turned him around, and headed him streetward. The shabby man considered this an outrage, and said so with gestures, to the passing throng. He then entered the drug store. Presently he was ejected, this time from the west entrance. This sort of thing kept up for five or ten minutes. A crowd gathered, not sure whether the rest was worth waiting for. Finally the old fellow retreated to the curb where he swayed precariously while taxis, trucks, and street cars lunged by. He shouted to the traffic policeman at the intersection, but couldn't make himself heard above the roar of the elevated and street. Frantically and angrily he signalled. He waved his arms to the policeman. He pointed to the Fisher Building, pecking the air viciously to indicate there was something wrong in there. The final phase of his pantomime was a sweeping full arm beckoning to the officer to go inside with him (as we interpreted it) and wring somebody's neck. He illustrated this detail beautifully. At 12:15 a patrol wagon came for him. We wondered if he was a farmer who hadn't wanted to cut his wheat acreage, a grain dealer, or just one of the tenth floor organization who had suddenly realized the futility of the Agricultural Marketing Act.



H. I. BALDWIN  
Decatur

# NEWS OF THE TERMINAL MARKETS

E. K. SHEPPERD  
Indianapolis

## FARMERS' NATIONAL PURCHASES MINNEAPOLIS CONCERN

The Farmers National Grain Corporation has bought the Quinn-Shepherdson Company, grain firm of Minneapolis, and its headquarters will be moved to St. Paul. H. F. Shepherdson, president of the firm, will continue as manager of the St. Paul district, and B. V. Locksmoor will manage the Minneapolis branch office.

Offices of the company at Duluth, Minn., and Great Falls, Mont., will be retained as branches.

## DULUTH BOARD PLANS CELEBRATION OF FIFTIETH ANNIVERSARY

The Duluth Board of Trade, founded January 3, 1881, is already beginning to formulate plans for the celebration of its fiftieth anniversary next January. Figures given out by the board of trade show that during the nearly 50 years of operation around 3,500,000,000 bushels of grain have been directed into consuming channels from the Duluth market, with 1924-25 the biggest fiscal year in the history of the exchange when 200,000,000 bushels of grain were received.

With the average price of wheat during the last 60 years placed at \$1.23 a bushel, the value of grain shipped and received from the Duluth Board of Trade amounts to several billions of dollars.

## FIRST UNIT OF 6,000,000-BUSHEL GALVESTON PLANT OPENS

The first unit of the new 6,000,000-bushel grain elevator of the Galveston Wharf Company at Galveston, Texas, was officially opened on the first of this month. This unit has a capacity of 2,000,000 bushels. Others will be ready shortly, bringing the total storage space up to 6,000,000 bushels.

While the machinery, made by the Webster Manufacturing Company of Chicago, and the Fairbanks Morse Scales have been tested and grain is being received for storage, the elevator is not ready to handle export business as yet. The two older elevators of the company are operating as usual, however, and are taking care of the companies out-bound trade.

## SLIGHT INCREASE IN FUTURES TRADING REPORTED AT CHICAGO

An increase in trading of 105,817,000 bushels was recorded on the Chicago Board of Trade grain futures market during July as compared with the preceding month, 1,682,807,000 being traded against 1,576,990 bushels in June. In July, 1929, almost twice the amount of trading was done, the figures reaching 3,097,166,000 bushels.

The totals for July of this year were divided among the various grains in the following manner, June figures being shown in parenthesis for comparison: Wheat, 1,129,477,000 bushels (1,178,377,000); corn, 464,695,000 bushels (297,025,000); oats 48,298,000 bushels (418,377,000); and rye, 40,337,000 bushels (59,751,000).

Average open contracts on the Chicago exchange for July, "short" side of contract only being shown, there being an equal amount on the "long" side, were: Wheat, 115,037,000 bushels compared with 172,889,000 in July, 1929, and 122,622,000 in June, 1930; corn, 38,939,000 bushels against 48,567,000 in July, 1929, and 44,246,000 in June, 1930; oats, 16,150,000 bushels contrasted with 23,220,000 in July, 1929, and 15,529,000 in June, 1930; and rye, 16,555,000 bushels compared with 7,975,000 in July, 1929,

and 19,657,000 in June, 1930. The average open contract for all grains at Chicago in July was 186,682,000 bushels against 252,651,000 in July, 1929, and 22,055,000 in June, 1930.

## RILEY E. PRATT PASSES ON

Riley E. Pratt, organizer of the old firm of Pratt & Co., and prominent in Buffalo grain circles, died during the latter part of July after a three months' illness. Mr. Pratt retired from active business several years ago.

Mr. Pratt, though born in Connecticut, spent the greater part of his early years in Decatur, Ill., coming to Buffalo in 1889 as representative of Pratt & Co. Later he organized a firm of his own under the same name and until its merger with the Husted



THE LATE RILEY E. PRATT

Mill & Elevator Company served as president. He was a member of the Buffalo Corn Exchange, the Buffalo Club, and Buffalo country club.

## GOOD DEMAND AT TOLEDO

In their market review of August 9, Southworth & Co., of Toledo, says: "Wheat receipts are falling off rapidly, although prices this week are the highest on the crop. The quality of the wheat and low price basis are recognized by outside mills and a good shipping demand has developed, which is earlier than usual. The inspections include 255 No. 1, 131 No. 2, three lower grades, and 45 cars of Hard. Michigan wheat carries considerable smut, and 57 cars graded off on that account. No. 2 Red bid basis is unchanged 4½ cents under Chicago September from 28½ cent rate. Very little corn is offered even at the extreme advance, and spot cars are wanted by local industries. Consign your corn. Oats movement is fairly large, with seven cars grading No. 1, 121 No. 2 and 13 No. 3. Test weight

is averaging 35 to 38 pounds. Prices advanced with other grains and cash gained on the futures. Buyers want to load up on account of the excellent quality and comparative cheapness of oats, so expect a continued good consignment demand."

## MONTREAL RECEIPTS AND SHIPMENTS

J. Stanley Cook, Secretary of the Montreal Board of Trade, has finally released the April, May, and June receipts and shipments for Montreal. The figures for July of this year are still unavailable.

The receipts and shipments for April were:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus..	362,815	350,190	16,285	85,520
Corn, bus. ..	30,500	17,251	504	4,369
Oats, bus. ..	213,929	307,553	4,283	46,922
Barley, bus..	34,069	65,476	9,300	2,459
Flaxseed, bus. ....	117,200	1,900	.....	.....
Hay, bales ..	26,173	22,339	.....	.....
Flour, bbls..	169,814	125,826	92,855	100,915

The receipts and shipments for May were:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus..	11,924,748	15,621,608	6,898,220	12,146,522
Corn, bus. ..	14,500	121,210	1,742	5,262
Oats, bus. ..	1,175,809	3,308,429	70,756	1,457,320
Barley, bus..	475,808	1,445,965	115,255	560,790
Rye, bus. ...	412,037	69,964	115,972	64,285
Flaxseed, bus. ....	86,774	117,849	.....	.....
Hay, bales..	25,164	95,473	38,900	116,571
Flour, bbls..	402,050	406,383	339,131	399,137

The receipts and shipments for June were:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus..	14,122,564	16,243,771	10,132,458	14,276,729
Corn, bus. ..	14,631	83,274	4,768	8,224
Oats, bus. ...	946,256	4,959,603	61,385	1,789,699
Barley, bus..	396,593	2,727,377	59,482	1,380,607
Rye, bus. ...	216,244	864,988	95,355	279,063
Flaxseed, bus. ....	42,000	80,500	.....	.....
Hay, bales ..	45,818	110,529	.....	.....
Flour, bbls..	300,632	315,445	384,656	467,954

## SUIT FOR INJUNCTION FILED AGAINST OMAHA EXCHANGE

A suit for an injunction against the Omaha Grain Exchange to restrain it from collecting charges for unloading, weighing, transferring, reloading, and inspection of grain was filed in the state district court at Omaha, July 28, by the attorney general, C. A. Sorensen, it was announced at his office.

The petition asks the court to dissolve and oust the exchange from its franchises and privileges if it continues to enforce its rules for such charges, in so far as they conflict with the state law.

The suit was filed, Mr. Sorensen stated, to test a statute re-enacted by a special session of the legislature with a slight amendment to the title. The grain exchange some years ago, he explained, enjoined the state officials from enforcing the statute, but the suit was decided in favor of the state on technical grounds. For the purpose of trying the case anew upon the merits of the statute, the attorney general said, he has instituted this suit.

It is alleged in the petition that from 50,000,000 to 75,000,000 bushels of grain are annually handled through the Omaha Grain Exchange. Grain sold on "Omaha terms", that is, diverted or reshipped after being sold on the exchange, in order to be weighed as required by the exchange rules, is unloaded from cars, is transferred through terminal elevators and loaded into other cars at a charge of one cent per bushel for non-members and non-resi-



dent members of the exchange, and one-half cent a bushel for resident members.

"Thereby needlessly and unlawfully subjecting the producers in Nebraska to a loss," says the petition, "on an average car of grain, of from \$12 to \$15, in addition to the said unnecessary inspection and weighing charges. The charges for unloading and transferring grain from car to car are retained by the elevator owner."

### FEEDERS SHIPPING IN GRAIN

A hundred per cent week, viz: The mercury registered 100 degrees plus each and every day; no rain here worth mentioning—all pretty hard on man, beast and vegetation. A gorgeous bunch of hot-house gladioli on our desk, usually good for a week's admiration, withered in two days. A Texas correspondent claims pop corn in his state popped on the stalk; a newspaper item says eggs hatched without the old hen's help.

Many think that the partial failure of the corn crop and consequent advance in price will build up the entire price structure of all grains, as mixed feed millers will reconstruct their formulas and substitute wheat, oats and barley for corn to quite an extent. Farmers already are bringing in wheat and oats to local mills and having them ground for their own use. Wheat is said to be a better feed—pound for pound—for hogs than corn.

The great corn belt of Illinois extends from the Indiana line on the east to the Iowa-Missouri line on the west; the width is about 150 miles with Decatur near the southern part. No man can definitely state the damage to the growing crop since July 1, at which time indications pointed to a bumper crop. One man comes in with a bunch of fine roasting ears; another brings in some bare cobs showing poor polonization or maybe some blisters where kernels should be; these samples may both come from the same vicinity. We have to admit at least a 25 per cent deterioration from condition of July first in this great corn belt of Illinois, should rains come early next week as promised by Government and private forecasts. Corn in southern Illinois is mostly destroyed except for fodder. Feeders in that section are already shipping in corn and oats and wheat.

High prices have moved considerable Illinois corn to market this week. Same has met eager buyers so far. The harvest movement of oats from this section is over with. We handled a car loaded with 4,110 bushels of oats recently; they weigh like lead.—*H. I. Baldwin & Co., Decatur, Ill., letter of mid-August.*

### WARNS AGAINST STORING WHEAT FOR TOO LONG A PERIOD

C. A. Morton, St. Louis cash wheat dealer, is warning country millers and elevator operators against holding wheat in bins for any extended period of time. He says, in outlining his reasons for caution:

"Many customers say they are going to hold wheat this year because of the low price, fine quality, and because it is so dry that it will require no elevating to keep it in condition. The latter is a mistake and may lead to serious losses because of damaged wheat. All wheat, no matter what its moisture content, is constantly undergoing chemical changes within the berry.

"In high-moisture wheat this change goes on relatively fast, giving off moisture and carbon-dioxide during the process. It has usually been called sweating, though a better word would be breathing. When this process takes place in the shock or stack, the air has a chance to get to it and the gases escape without doing damage.

"However, if there is excessive moisture in the straw or it becomes closely packed, the wheat heats and thus we have mow burned or stack burned wheat.

"If the wheat is put in a bin when the moisture content is high, the sweating or breathing process causes it to get warm and then heat and unless moved frequently it becomes bin burned or heat

damaged. Any grain dealer, miller or elevator man understands these phases so well that only carelessness can excuse losses from these causes.

"But with dry wheat, even as extremely dry as this year's crop, the same process goes on, but at so slow a rate that the wheat never becomes even the least bit warm. But carbon-dioxide is being released and being a gas that is heavier than air, it does not escape, but sifts down to the bottom of the bin. If there is no escape for the gas, either through some form of ventilation, or the usual method of moving the wheat from one bin to the other, the gas is reabsorbed by the wheat, the germ is damaged, dies, and the entire kernel is damaged, to a greater or less extent. This is the so-called sick wheat of which we have had so much in recent years.

"So the greatest danger is to those who have extra dry wheat, for the damage takes place without the usual warning of getting warm."

### SEATTLE GRAIN EXCHANGE RE-ELECTS OFFICERS

All officers of the Seattle Grain Exchange were re-elected to serve another term at a meeting of the board of trustees. The officers are: President, W. H. Foster; vice-president, Frank E. Ryer; secretary, H. L. McIntyre, and treasurer, R. M. Hawkins. J. McCormack was re-appointed manager.

Secretary McIntyre's report showed that the business of the Seattle Grain Exchange has nearly doubled in the past year, thus effectively proving that the two largest grain exchanges of the Northwest, Portland and Seattle, working together, have provided facilities for the liquidation of wheat in a highly efficient manner. The past year also shows that the two exchanges have been of great benefit to the trade and instead of cutting the volume of business, have actually stimulated it.

In speaking of the present grain situation, Secretary McIntyre said, in part:



H. L. MCINTYRE was born of necessity and has been maintained through experience and has undoubtedly served a great purpose. It embodies in its construction and operation the best and finest thought of the times. It has served its purpose well and has proved an efficient and economical vehicle in the service of the grain trade.

"If speculation, which is highly individualistic and which plays a large part in our grain exchange activities, is responsible for wide and abortive swings in prices, thus keeping production on a correspondingly fluctuating basis, then the system is ready for re-adjustment or change, and it is undoubtedly this condition which public thought, as typified and crystalized in what is termed the farm board, is attempting to correct.

"The real problem before the grain industry, therefore, is to find ways and means of putting to greater use the bounties of nature which are being bestowed so abundantly upon us, forget our individual differences and our inherence to traditional and outgrowth standards, trust the future, and strive for a more forward looking and more universal viewpoint."

### WHEAT RECEIPTS LIGHT AT PEORIA

Wheat receipts are getting lighter in this territory. The producer has still considerable on hand, as the quality is about perfect both as to weight and moisture content. Prices during threshing time were considerably lower than they are now and threshing returns show that this state raised a very heavy crop, but in the meantime the droughty condition has caused a holding tendency.

Receipts of corn are just about equal to the demand. Prices in this market are in line with competitive markets with a good demand for industrial purposes and a fair demand from outside markets.

Everyone seems to be working on a hand-to-mouth basis in this cereal. Since the Government report we have been having a few showers and considerably cooler weather and some of the trade believe this will still improve crop condition.

Oat receipts have not been particularly heavy at any time and those interested in storing them have been unable to get the amount wanted. The new crop is of such excellent quality that no doubt the producer will hold quite a lot of it and sell his old corn, as the oats are so much cheaper as feed. While there has been no demand of any consequence for shipment, this will probably appear later on. We look for a good demand for oats for storage to continue.—*Mueller Grain Company, Peoria, Ill., letter of mid-August.*

### GOOD PREMIUMS AT MINNEAPOLIS

The cash corn is advancing very sharply as compared with the Chicago futures, the advance today in this respect being about two cents per bushel. Oats premiums remain about the same, so do those of wheat.—*Cereal Grading Company, Minneapolis, Minn., letter of August 12.*

### SHARP DEMAND AT INDIANAPOLIS

We are just finishing up a fairly heavy run of both wheat and oats, and during the movement there never was a time when we didn't have a real sharp demand for both wheat and oats. We are looking for receipts to get considerably lighter now and with a continued good demand.

Corn receipts are picking up. We are having an excellent demand for both White and Yellow corn with White corn selling at about three cents premium over Yellow.—*The Cleveland Grain Company, Indianapolis, Ind., letter of August 12.*

### VETERAN CHICAGO TRADER DIES

Alfred Thomas Martin, veteran Chicago grain trader and vice-president of the Bartlett Frazier Company, Chicago grain brokers, died July 31 at his home in Wheaton, Ill. Mr. Martin, who retired from active business in January, 1929, because of poor health, was 65 years old. He had been associated with the Bartlett Frazier concern for more than 30 years, and had been a member of the Chicago Board of Trade since 1891.

Mr. Martin is survived by his widow, a brother, William H. Martin, and a sister, Miss May Martin.

### CHICAGO DRUM AND BUGLE CORPS AWARDED \$100 PRIZE

The Chicago Board of Trade Post Drum and Bugle Corps participated in a legion drum and bugle contest at North Chicago, Ill., August 10, winning second prize of \$100. Following its usual custom of distributing prize money to welfare work of the American Legion, \$50 was turned over to the legion orphan home at Normal, Ill., \$25 to its legion auxiliary opportunity fund, and \$25 to the North Chicago Legion post for service work.

This is the second prize within recent weeks, the corps showing steady improvement in its drills under the leadership of Drum Major Ralph T. Baker.

### NAME NEW YORK COMMITTEES

President Bodman and the board of managers of the New York exchange have announced the appointment of the following committees to serve during the ensuing year: Trade and transportation: P. S. Arthur, chairman, F. Leval, R. M. Morgan, John Van Ryn, Moses Cohen. Railway affairs: S. D. Riddle, chairman, George R. Wheeler, M. J. Ormond, H. G. E. Pansius, John O. James, A. F. Birnbrauer, Carlos Falk. Steamship affairs: Joseph A. Robinson, chairman, A. J. Morris, George H. Wells, J. Ward Warner, John J. B. Cooper. Grain: A. C. Field, chairman, J. J. O'Donohoe, C. N. Hitchcock, Charles F. Watt, L. G. Leverich.

Securities: H. B. Watson, chairman, E. J. Wade, Samuel S. Lerner, J. D. Zimmerman, Carl F. Andrus, Gilbert L. King, I. D. Noll, William Beatty, R. W. Betts, A. M. Goodman, Clark H. Sparks.



Information and statistics: J. J. O'Donohoe, chairman, A. L. Russell, B. F. Schwartz, E. W. S. Knudsen. Flour: Fred O. Seaver, chairman, B. H. Wunder, Albert F. Janss. Seeds: Marshall H. Duryea, chairman, Ernest Wehncke, O. W. F. Randolph.

Carlot (grain): Joseph A. Abel, Jr., chairman, Edwin A. Barnes, James H. Bowne, R. J. Kaiser, L. W. Forbell. Provisions: Monroe Washer, chairman, James F. Pierce, A. L. Snow, John H. Burns, Robert McVickar. Hay and straw: Frank S. Voorhees, chairman, Charles Schaefer, Franklin Lewi, Charles La Due, Clarence S. Betts. Cotton seed products: J. M. Murray, chairman, Robert W. Capps, Philip Brendel, William H. Freund, Arthur E. Orvis. Lard: A. L. Snow, chairman, W. J. Murphy, J. P. Grant, Henry P. Kidd, D. W. Frazer.

## CHANGES IN MEMBERSHIP

**Baltimore.**—The following were admitted to the Baltimore Chamber of Commerce: Cecil Howard Spedden, Albrecht E. Stude, Golder Shumate, and John H. Brown.

**Boston.**—Edmund J. O'Connor, of Jackson Bros. Boesel & Co. has been admitted to the Boston Grain and Flour Exchange.

**Chicago.**—The following have been admitted to the Chicago Board of Trade: Wesley M. Sears, of Phalen & Co.; Joshua M. Chilton, of the Farmers National Grain Corporation; Claude N. Hitchcock, of the Itasca Export Corporation; J. Theus Muns, of Munds & Winslow; Harry J. Sullivan, of Charles Sincere & Co.; Gus K. Worms, of Newman Bros. & Worms; Russell V. Arentz, of the Uhlmann Grain Company; Morton Mannheim, of the Rosenbaum Grain Corporation; Edward J. Feehery, Jr.; and Elmer M. Hodel. Memberships transferred are: Addison L. Gardner, Jr., Frank G. Crowell, Julius H. Barnes, H. R. Winthrop, Harry J. Lowenbach, C. Howard Marfield, Alfred Ettlinger, J. W. Coverdale, Charles A. M. Waterhouse, and Edward L. Hicks, Jr.

**Duluth.**—The following have been admitted to the Duluth Board of Trade: W. A. Baune, Clarence Mathewson, H. D. Palin, and W. Dalrymple, Jr. Those who have withdrawn are W. Dalrymple, Sr., A. B. Marcy, G. C. Sterling, Ludwig Eisemann, and George S. Milnor.

**Kansas City.**—Chauncey J. Gundelfinger has been admitted to the Kansas City Board of Trade on the transfer of Ralph H. Orthwein.

**New York.**—New members of the New York Produce Exchange are: John J. Hildebrand, of H. C. Bohak & Co.; William M. Gavigan, of Funch, Edye & Co.; and Arthur Freed.

**St. Louis.**—The following changes occurred on the St. Louis Merchants Exchange: J. H. Caldwell, Jr., of the Updike Grain Company, was admitted on the transfer of Ivan F. Wieland, and Loren J. Morgan was admitted on the transfer of Charles S. Moffitt.

## PENN. GRAIN DEMAND NOT INCREASED

**Oats:** The demand for oats has been fair, but on account of large local supplies, the new crop just harvesting very good, demand is somewhat below normal. Country offerings have subsided somewhat, due no doubt, to the advance in the market.

**Corn:** The demand is just fair. It is hard to sell a consumer corn at \$1.25 to \$1.35 per bushel when he can buy wheat at 80 cents to 85 cents, which seems to be the prevailing prices in Pennsylvania.

There does not seem to be any increase in the demand for anything, due to dry weather, in fact, the drought conditions affect the hay, more than it did anything else in this territory.

We do not see any good reason for an increase in the demand for grain in our territory, due to the dry weather conditions.

Milk and poultry products are still low, and it is unprofitable to feed.

Our general market conditions are in line with others, but stocks are not burdensome. We can recommend consignments of oats or corn. Ear

corn is not in demand, and cannot recommend consignments of this commodity.—*Harper Grain Company, Pittsburgh, Pa., letter of August 12.*

## EASTERN BUYERS ACTIVE

The widely advertised conditions in the corn belt with the prospect of a very short crop has caused eastern consumers who had let their stocks run low, to come into the market and the result has been a very good demand during the past couple of weeks. The extreme high price has shut off the demand again, however, and with the eastern section of the country raising larger home grown crops than usual it is likely the demand will be on a more or less hand-to-mouth basis while present or higher prices prevail. One of the noticeable features recently is the increased demand for feed wheat some of the good grades of which are selling considerably less than corn. There has also been an increased demand for barley both for nearby and future shipment, showing that the consumer is already beginning to substitute cheaper feeds in place of corn.—*J. G. McKillen, Buffalo, N. Y., letter of mid-August.*

## TERMINAL NOTES

The San Francisco barley futures market was re-opened last month after being closed for a number of years on account of the uncertainty of Government standards.

The membership retirement fund of the Chicago Board of Trade had mounted to \$307,862.58 the middle of last month while the new building fund jumped to \$1,461,537.37.

J. R. Marfield, Jr., of the Marfield Grain Company, qualified for the Minnesota state amateur golf championship at Rochester, but failed to finish among the leaders in the tournament.

McKenna & Strasser, Chicago grain brokers, have moved their offices to Room 1030 in the new Chicago Board of Trade Building. They were formerly in the Rand-McNally Building.

At the annual election of the Wichita Board of Trade, W. A. Smith was elected president and J. A. Woodside, vice-president. Directors are: A. F. Baker, I. H. Blood, R. R. Roth, R. W. Smith, E. H. Adair, A. R. Randle, L. H. Powell, and R. W. Payne.

The Occident Elevator Company received the first car of new Montana Winter wheat to arrive in Minneapolis this season. The car came from Rosebud, Mont., graded No. 1 Hard Winter, tested 11.10 protein, and weighed 60 pounds to the bushel.

An average of about 275 cars of wheat have been received in Salina, Kan., daily during the harvest season, according to a count made by the grain inspection offices there. Laboratory tests show the wheat uniformly good as to protein content.

John Mitchell, of the W. C. Mitchell Company, Duluth, who has been managing the Minneapolis office of the company for some time, is returning to Duluth to take over the management of the office there because of the death of Carlisle Hastings.

Stimulation of South American trade was the object of a visit by Halbert Watkins, commercial attache at Caracas, Venezuela, to Houston recently. With regular service established, Mr. Watkins looks for an increased trade between the United States and Venezuela.

The following have been elected officers of the Los Angeles Grain Exchange: President, Max Viault; vice-president, J. R. Garvey; treasurer, F. E. Devendorf; directors, E. B. Young, G. R. Strickland, O. H. Blasingham, H. W. Amelung, and W. B. Waterman.

J. J. Mann, secretary of the Wichita Board of Trade, has been appointed registrar for the wheat stored in Wichita's public elevators for the 1930 season. He will issue receipts for all grain stored there and these receipts must be returned through his office before the grain can be taken out.

Galveston sees a big victory in the new grain rates, since Galveston, Texas City, and Houston will enjoy the same rates, domestic and export, on grain and grain products shipped from points in Texas, Oklahoma, Kansas, and other grain producing states

tributary to the Texas ports. The decision of the commission on the Galveston-New Orleans port case was also re-affirmed, which will give Galveston lower rates than New Orleans on grain and grain products originating at points on the Santa Fe in other parts of Kansas and Oklahoma.

The two big western roads, the Northern Pacific and the Great Northern, have it all figured out that the revision of grain rates on October 1 is going to cost each of them three-quarters of a million dollars annually.

The Chicago corporation of Cross, Roy & Harris, consisting of Albert E. Cross, Ervin L. Roy, Guy E. Warren, Edward L. Hicks, Jr., and Siebel C. Harris, all members of the Chicago Board of Trade, has been dissolved. Mr. Harris, it is announced, is now a partner in the firm of Scott, Burrows & Christie.

The many problems confronting the grain dealer today were discussed at a meeting in Sycamore, Ill., recently at which 40 grain men from McHenry, Boone, Ogle, Kane, and DeKalb counties were in attendance. The meeting was sponsored by Lamson Bros., prominent commission merchants on the Chicago Board of Trade.

T. A. Sullivan has changed his representation on the Kansas City Board of Trade from the Hall-Baker Grain Company to the Meservey-O'Sullivan Grain Company. C. M. Hardenbergh, of the same exchange, has changed his registration from the Southwestern Milling Company to the Larabee Flour Mills Company.

July wheat deliveries in Kansas City almost made a new low record considering the heavy stocks of grain carried in public elevators. Tenders during the entire month amounted to only 123,000 bushels of wheat, including 8,000 the last day of the month. Corn tenders were 176,000 for the month, of which 1,000 bushels were on July 31.

Effective the first of this month, the broadcasting of grain market and crop information over station KSD, St. Louis, has been going on at the following periods: 8:40 a. m., 9:40 a. m., 10:40 a. m., 11:40 a. m., 12:15 p. m., 12:40 p. m., and 1:40 p. m. All time is standard. The broadcast is sponsored by the St. Louis Merchants Exchange.

Charles J. Baker, secretary of the Hylton Flour Mills, Inc., was elected president of the Ogden Grain Exchange at a special meeting of the directors. H. P. Iverson, former president, who was recently elected for his fifth consecutive term, leaves soon for San Francisco to become head of the Sperry Flour Company's grain department.

A new system of grain weighing which uses a card arrangement showing the correct weight and time of loading of each grain consignment loaded by a steamer from the Houston Municipal Elevator or the American Maid Flour Mills' elevator, has been inaugurated at Houston, according to an announcement from Colonel B. C. Allin, director of the port.

Arnett W. Leslie, a director of the Minneapolis Civic & Commerce Association, has been appointed chairman of a drive instituted by the organization to increase wheat consumption and the consumption of other farm products. "Eat Wheat for Health and Prosperity" is one of the slogans proposed. Also, it is planned to distribute buttons bearing the statement: "I Ate More Wheat Today."

Four Chicago Board of Trade members, three of whom were registered with Cross, Roy & Harris, now dissolved, registered for their own account during the last month. They are Guy E. Warren, A. E. Cross, Ervin L. Roy, and William J. Walsh, formerly with Baker, Walsh & Co. S. P. Arnot, former president of the exchange, who was registered for his own account, is now with Colvin & Co.

At a meeting of the board of directors of the Sheets Elevator Company and the G. E. Conkey Company, held in Cleveland, Frank S. Sheets was elected president, succeeding his father, the late James M. Sheets who was one of the founders of the business and its president for almost half a century. Albert B. Conkey was elected vice-president and A. A. Kemper, secretary and treasurer.



## NEWS LETTERS

## INDIANAPOLIS

H. M. RUDEAUX CORRESPONDENT

EFFORTS to complete negotiations by which the Shelby County Farm Bureau Co-operative Association, operating a grain elevator in Shelbyville, Ind., was also to have the management of the grain elevator there, bought recently by the Central States Grain Association, came to a close on July 16. It was announced that the two elevators will be operated separately and independently of each other and will have no connection. Appointment of Clarence D. Cutzinger, of Shelbyville, as general supervisor for 22 plants of the Central States Elevator Association is believed to have caused a rift which stopped the management merger plan. Mr. Cutzinger formerly was manager of the Martin Cutzinger Grain Company elevator. This plant was bought by the Central States Grain Association and removed competition of the farm bureau concern, which had competed with Mr. Cutzinger for several years. With the farm bureau in charge of both plants it appeared that no further trouble would be encountered by the farm organization. It was understood, however, that the farmers objected to making Cutzinger supervisor of the business which they would manage and which he formerly managed.

\* \* \*

A grain elevator at Falmouth, Ind., managed by Hadley Clark, was destroyed by fire with a loss of \$15,000, July 12. Five thousand bushels of new wheat were lost. An overheated exhaust pipe caused the fire.

\* \* \*

Reports from various parts of the state coming into the Purdue University Agricultural Experiment Station indicate that many farmers are turning to wheat as a feed for livestock, replacing part of the corn in the ration. The opinion is advanced in many regions of the state that much wheat will be fed.

\* \* \*

New oats arriving at Indianapolis are said to be the finest in years. Most arrivals are grading No. 1, heavy, and excellent color. Receipts are averaging 100 cars a day and are readily absorbed. The movement of wheat is about over, receipts having dropped to about 30 cars a day. The quality of wheat has been excellent and is said to have been far above the average. Arrivals of corn are small, with very good demand. White milling of top grades is bringing a premium of from three to four cents a bushel.

\* \* \*

Damage of \$32,000 was caused by a fire that destroyed the Martin Nading Company grain elevator and contents at Flat Rock, Ind., 10 miles south of Shelbyville, July 13. The loss included 8,000 bushels of new wheat in the elevator and 1,200 bushels that had been loaded in a freight car, which also was burned. Peculiar circumstances surrounding the fire may result in investigation by the state fire marshal's office. The fire consumed the elevator proper, the power plant and boiler room. The loss of the elevator was estimated at \$25,000, of which one-half is covered with insurance. The 8,000 bushels wheat in the plant, and the 1,200 bushels in the car on the siding, valued at a total of \$7,000, were insured for full value.

\* \* \*

Frank Swinney, prominent Taylor Township farmer, living 1½ miles south of Oakford, has reported the best small grain yield of the year in Howard County. Mr. Swinney had four acres in oats. The oats from this patch of land yielded 424 bushels, or 106 bushels to the acre. He attributes the heavy yield to intensive fertilization of the ground.

\* \* \*

A smoldering fire, thought to have been extinguished Sunday, August 3, rekindled Monday night, and destroyed the Baltic Mills, Vincennes, Ind., at a loss of \$100,000 and ignited several nearby structures. The Baltic Mills, a grain elevator, was on

the site of the Clark Memorial and was the subject of court litigation still pending, as a result of the owners, John and Orville Stout, refusing to sell the structure to the memorial committee. Grain stored in the elevator brought the loss to \$100,000. Thirty-five thousand dollars had been offered for the building by the memorial committee.

\* \* \*

With the annual movement of green corn now on, 50 road guards were placed by Frank N. Wallace, state entomologist, on the principal highways in the north part of the state along the lower border of the European corn borer infestation area. In addition to the state force of guards, the United States Department of Agriculture has an army of scouts doing advance work with a view of determining how far the borer has advanced in recent months.

\* \* \*

Destruction of Harrodsburg's (Ind.) old mill by fire removed one of the old landmarks of that section of the state. The property was owned by Fred Thrasher, who estimated the loss at \$3,500.

\* \* \*

All-time heat records were being recorded in many parts of the state during the past six weeks. Two sinister factors developed as a result of the combined drought and hot weather: Crops which might have been helped by rain at the crucial time, are believed to be past help; and farmers are facing a serious shortage of water for their livestock, which may result in death for a number of animals. The intense sun rays have caused many cornfields to cook and the leaves of the stalks to curl, ruining the prospects for other than a very poor crop. Farmers of nearly all southern Indiana counties are without means of watering their stock, ponds, wells and creeks being dried up, and are being forced to haul water long distances to keep their stock from dying of thirst. Pasture areas are burned dry, making it necessary to use winter feed.

\* \* \*

The prices of hay have mounted skyward, with offerings very limited. Clover and mixed hay are very scarce and farmers refuse to sell even at quotations well above present bids. It is predicted that hay values will go higher than during the World War on account of the drought now drying up pasture lands in all parts of Indiana and compelling farmers to feed their surplus roughage.

## PEORIA

IVAN L. REVEAL CORRESPONDENT

THE oats movement in the Peoria market was practically completed by August 5 and was considerably lighter than last year. A large amount of the grain was held on the farms of central Illinois this year, due to the drought. Yields per acre proved much better than many estimates intimated before threshing and most of the oats were of good quality, a majority of the receipts testing 34 pounds per bushel.

\* \* \*

Four weeks without a rain in this vicinity and but 0.41 inch then which but partially alleviated the parched condition of the fields has started many fields of corn firing. Damage to these fields varies greatly, a few apparently showing but little effects of the drought, while others give little indication of producing ten bushels per acre. Observers generally agree that the central Illinois corn crop is damaged to date from 30 to 35 per cent.

\* \* \*

Work is being rushed on the new addition to the terminal elevator of the East Peoria Elevator Company. The tanks are all completed and after a delay of two days, caused by the late arrival of steel, work was started on the roof. George W. Cole, vice-president, expects that building will be completed by September 1 and ready to receive grain.

\* \* \*

The first car of new wheat in the Peoria market was received by the Stacy Grain Company on July 10. It was consigned from the territory southeast

of here and was of high quality. It weighed 63 pounds per bushel, contained 11 per cent moisture and graded No. 1 Hard. It was harvested with a combine. Nearly all of the wheat received from central Illinois this year has been of good quality.

\* \* \*

The baseball league made up of members and employes of the Peoria Board of Trade was cooked out by the hot weather. Gus Peterson, of the Cleveland Grain Company, is still nursing a lame finger, however, as a result of misjudging a fast ball.

\* \* \*

P. B. Miles, of the firm of P. B. & C. C. Miles, is spending a month's vacation at his summer home on Walloon Lake, Mich. He expects to be back on the exchange shortly after September 1.

\* \* \*

Fred Mueller, of the Mueller Grain Company, has returned from a 10 days' vacation trip to Toronto, Canada, and Buffalo, N. Y.

## DULUTH

S. J. SCHULTE CORRESPONDENT

INTEREST has been aroused over the announcement that the shops of the Northern Pacific Railway at Brainerd, Minn., have been placed on a six-day week in the building of cars for use in this year's grain movement. It is assumed that the Federal grain corporation will start moving a large volume of wheat now stored in local elevators to the mills or lake terminals and for that reason a spurt is being made to place all available box cars in condition.

\* \* \*

Among the recent changes in memberships were: Admitted—Ludwig Eisemann, H. D. Palin, Clarence Mathewson, William Dalrymple, Jr., W. A. Baune. Withdrawn—G. S. Milnor, G. C. Sterling, A. B. Marcy, William Dalrymple, Sr.

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Eldon J. Morris, assistant secretary of Lurle & Co., has been appointed assistant trader for the Northwest Grain Association's Duluth office.

\* \* \*

The Grain Stabilization Corporation, the Farmers National Grain Corporation, and Northwest Grain Association, have been admitted to corporate membership in the Duluth Board of Trade.

\* \* \*

Irregularity and uncertainty exist in grain rates at the Duluth terminals. Some charters are reported to have been made at as low as 15½ cents and 1¾ cents to Buffalo and 8 to 8½ cents to Montreal.

\* \* \*

The death of Carlisle Hastings, of the W. C. Mitchell Company, who died July 6, was deeply regretted by a wide circle of friends on this market. He was 50 years of age and had been with the company for 25 years, rising to the position of general manager and secretary of the local office.

\* \* \*

G. H. Spencer, vice-president of the Consolidated Elevator Company, has returned from a trip down the lakes.

\* \* \*

Howard D. Palin, of Minneapolis, has assumed the position of Frank W. Falk as manager for the Becher-Barrett-Lockerby Company's office here, and has been elected a member of the Duluth Board of Trade.

\* \* \*

George E. King, vice-president of the Red Star Milling Company, Wichita, Kan., was a recent visitor on this market. He was remembered by old friends as having been connected with the old Duluth-Imperial Mill Company many years ago.

\* \* \*

Duluth grain men were interested to learn that H. F. Shepherdson will be district manager of the Federal grain unit which will be moved from Minneapolis to St. Paul. Officers of the Quinn-Shepherdson company have been advised that the firm's branches here and at Great Falls, Mont., will be retained as branches of the Federal unit. Members



of the old firm were held in high esteem on this market and predictions are being made to the effect that success will continue to follow them.

\* \* \*

Handling of the 1930 grain crop will be effected without terminal blockades, in the opinion of those who attended the recent quarterly meeting of the Northwest Shippers Association Advisory Board held here. It is felt that conditions are much improved and that the crop should be handled without trouble. Encouraging reports are expected at the next quarterly meeting of the board to be held at Grand Forks, N. D., in October.

\* \* \*

A new elevator construction at the Head of the Lakes is progressing rapidly and with its completion several millions of bushels additional storage space will be provided for handling the new season's grain crop. The largest piece of work is the building of additional bins to the Great Northern Elevator S at Superior. This will bring the storage capacity of that plant up to 13,000,000 bushels, making it the largest in the world. Other new elevator additions under way include the Occident at Duluth, the Itasca at Superior, and the Peavey at Duluth. The building of another elevator addition was recently forecast and is expected to be carried through during the coming winter.

\* \* \*

Construction of flat storage tanks this fall is proposed at Superior for the Archer-Daniels-Midland Company. There is said to be little possibility of the Minneapolis firm erecting a Duluth crushing plant, but the purchase of the property will place it on equal footing with the Kellogg-Spencer Company should it decide to proceed with the new building. The Kellogg-Spencer plant has re-opened here for the season employing 50 men.

## MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

A NUMBER of the Milwaukee grain dealers declare that the grain market is being whipped up to advances which are out of tune with the decline in crop prospects brought about by the dry weather in certain sections of the United States. With the exception of corn, the harvest of the crop of grain for this year is about complete, according to J. M. Riebs. He declared that there was a big crop of wheat in the Southwest and that is in the bins, or the elevators, while the only part of the wheat crop that might be affected by the drought is in the upper Northwest and Canada. He asserted that the heavy yield of wheat in the Southwest, together with the large carryover of grain, is more than ample to make up any declines in wheat yield of the Northwest brought on by the dry weather.

He stated further that there is a very choice crop of oats and it is about all in. The only crop that can be damaged much by the dry weather is corn, and even here many of the members of the Milwaukee grain board say that in the great commercial corn states like Iowa and Illinois, the crop will still yield fairly well.

Grain men here state that as long as wheat and corn are about on a parity there will be interchangeable uses of these grains to a great extent. Feed manufacturers, it is explained, will increase the ratio of wheat and decrease the ratio of corn as the corn prices go up.

Intimations are given that the drought situation is being exaggerated and that the farm board which has failed to boost prices to any great extent is now seeing the unusually dry weather accomplish what it was unable to do. In general, the opinion seems to be that one cannot build up much of a drought situation when nearly all the grain is harvested. It is also pointed out that corn can stand a lot of hot weather and that if rains come in fair abundance in the next two or three weeks most of the corn crop will also be saved.

\* \* \*

The malt business of Milwaukee is down to the slack season in line with the dull business in almost all lines. The shipments of malt for the past month were only 369,000 bushels as compared with reports of shipments of 456,000 bushels for the corresponding month of last year.

\* \* \*

Milwaukee's wheat movement from the Southwest, which is usually one of the important features of the grain trade here during this season of the year, has not materialized on as large a scale as formerly. During the month of July this business dropped to a point where it was not much more than half as large as a year ago. The total wheat received here for the past month was in excess of 1,545,000 bushels. The corn business, which has been Milwaukee's standby in previous years proved

a poor reliance for the past month with receipts of only 639,000 bushels as compared with a supply of 1,519,000 bushels for the corresponding month of last year. This indicates a slump in the corn business of upwards of 900,000 bushels.

\* \* \*

Wisconsin has been very fortunate in the great drought which has been spreading over the country. Recent rains have done much to offset whatever damage had been inflicted in the last few weeks. Official estimates indicate that the corn crop will be excellent. In many sections corn is 10 days to two weeks ahead of the same period last year. The hot weather has served to rush the crop ahead and prospects are that the state will have well-matured corn this year, ripening early enough to escape frosts. The rains came just in time to prevent any serious damage in most sections of the state. The small grains of Wisconsin were very largely harvested before the drought got so bad. The oats crop was very fine. Estimates of yields are 30 to 40 bushels in some sections and in other parts of the state the oats will yield 50 to 70 bushels per acre.

The barley crop was also very good with yields which will run above those of last year. Some estimates are of 30 to 40 bushels per acre. This crop was cut before the weather turned so dry and hot. Rye yields also were very good. Threshing is going on in some sections and returns from the machine appear to be fully up to early expectations.

Two or three counties in a strip along the lake shore did have dry weather for several weeks and in this section the damage will be somewhat greater. On the whole, however, the grain crops will be excellent including, wheat, oats, rye, barley and corn, with the recent showers, should make an exceptionally good yield, in marked contrast with damage to corn fields in other states.

\* \* \*

August is expected to be a fine month at Milwaukee for grain trade. In one day during this month, the receipts of grain were 511 carloads, of which 197 cars were oats, 150 cars were barley, 106 cars were wheat, besides 53 cars of corn and five carloads of rye. Railroad men of Milwaukee state that there will be a large movement of grain to market early in the season. There is little belief that the farmers of Iowa, Minnesota, and the Dakotas will hang on to their grain for higher prices. The pickup of the grain traffic movement for the first 10 or 15 days of August supports this theory.

\* \* \*

Two boat loads of wheat were recently shipped from the Kinnickinnic elevator of Donahue Stratton & Co. The cargoes were for Buffalo. The *Thomas Britt* took out 250,000 bushels and the *Thomason* a cargo of 350,000 bushels, making a total of 600,000 bushels in the two shipments.

\* \* \*

Grain inspectors report that the new wheat coming in here is of extraordinarily good quality, sometimes running at 62 pounds to the bushel. Much comment is heard also from handlers that the Winter wheat crop got under the wire before the dry weather came and thus threshed out to a splendid yield of high grade grain.

\* \* \*

The rate of interest on advances has been fixed by the finance committee of the Milwaukee Chamber of Commerce at 5½ per cent for the month of August. This is the lowest rate for years and indicates a gradual loosening up of the money market.

\* \* \*

One of the events of great interest to Milwaukee grainmen is the consolidation of the Marine National and the National Exchange banks, with Arthur H. Lindsay as the chairman of the board and G. W. Augustyn as the president. These banks have both been located near the chamber of commerce and served many of the grain dealers. The new bank will be consolidated with capital of \$2,200,000, with an \$800,000 surplus and more than \$400,000 in the undivided profit fund. The bank is located now in the quarters of the National Exchange Building, a handsome structure erected not long ago. The new bank is known as the Marine National Exchange.

\* \* \*

A company has been organized known as the Cereship Company, a grain shipping concern, to operate in connection with the Donahue-Stratton Grain Company. The incorporators are H. M. Stratton, A. D. Bennett and Lawrence A. Olwell. The concern will act in the handling of grain and in shipping where it is more convenient to do the work through the medium of the new company. The capital structure as organized is of 7,500 shares of \$100 par stock.

\* \* \*

The grain in Milwaukee elevators is starting to pile up a little again after the large shipments early in the season. The total of grain on hand early in August went up to the 2,400,000-bushel mark, of which the great bulk was wheat which stays in the local elevators as a rule only a short time before its shipment to the East.

Of the holdings, more than 1,250,000 bushels were wheat which is more than half of the aggregate.

The corn in storage was very light with 160,000 bushels. Oats holdings were a little larger with approximately 651,000 bushels. Barley storage was also very light with 122,000 bushels and the rye holdings are up a little with an aggregate of 237,000 bushels.

\* \* \*

Construction work is being rushed as much as possible on the Donahue-Stratton Grain Company's new elevator which will have a capacity of about 2,000,000 bushels. The new space is expected to be available soon after September 1. Work is also being pushed as fast as possible on the new addition to Elevator E leased by the Cargill Grain Company from the Chicago, Milwaukee and St. Paul Railroad. It is expected that one wing of the addition will be ready for grain in less than 30 days and the other addition will be ready in less than 60 days.

These two elevators will put Milwaukee grain dealers in the best shape they have been in at any time in recent years as there will be 4,000,000 bushels more space available. This will also provide space in the future for the big wheat movement from the Southwest with grain sent through here for export. In the future it is expected this business will be increased by the additional facilities.

\* \* \*

J. L. Bowlus, transportation manager at the Milwaukee Chamber of Commerce, has been giving some hard study to the new grain rates and he finds that in all probability they will rebound to the benefit of the local market. Mr. Bowlus believes that this market will profit more than other cities and that it is more than likely that a larger volume of grain will be received here as a result of the new rate. He predicts that Milwaukee is most likely to handle more export grain under the new regime, the new rates tending to favor that class of business.

## BALTIMORE

ROBERT C. NEU - CORRESPONDENT

WHILE receipts of new wheat in Baltimore have been running liberal, only a small portion of the daily movement has come on the market for sale—the major portion of the receipts going to the elevators to be stored for account of shippers who are evidently not satisfied with prevailing prices.

\* \* \*

Manager J. A. Peterson, of the Port Covington elevators of the Western Maryland Railway Company, recently put into operation a portable elevator leg which is being effectively used in the unloading of wagons and trucks bringing wheat to this elevator for storage.

\* \* \*

George S. Jackson, a member of the Baltimore Chamber of Commerce, formerly head of Barnes-Jackson Company, grain exporters, and for several years president of the North American Export Grain Association, has been appointed by President Hoover as a member of the commission which will investigate problems of policy now before the United States Shipping Board. During the World War Mr. Jackson served as aide to Mr. Hoover, then at the head of the Allied Food Commission in London.

\* \* \*

The name of James B. Ferguson, dealer in laboratory supplies, is posted as an applicant for membership in the Baltimore Chamber of Commerce.

\* \* \*

Officials of the Pennsylvania Railroad had as their guests on the afternoon of July 23 the heads of the leading grain firms here on a trip down the Baltimore harbor to witness the operation of its recently installed floating elevator.

\* \* \*

Wyatt William Randall, well-known chemist of this city, and brother of Blanchard Randall, head of the grain exporting firm of Gill & Fisher, died at the Johns Hopkins Hospital on July 23, following a minor operation.

\* \* \*

The first car of new western oats of the season to reach the Baltimore market was received on July 30 by J. A. Manger & Co., grain merchants, from Ohio. The oats graded No. 2 White, testing 34 pounds to the bushel.

\* \* \*

Charles F. Thomas, in charge of the export grain department of J. G. Oehrl & Co., grain forwarders of this market, was married on July 26 to Miss Marion Hunt, of this city.

\* \* \*

At the regular monthly meeting of the board of directors of the Baltimore Chamber of Commerce, held last month, the following new members were



elected in the chamber: Cecil Howard Spedden, Albrecht E. Stude, Golder Shumate, and John H. Brown.

\* \* \*

Exports of barley from the port of Baltimore for the first six months of the calendar year were only 8,311 bushels, compared to 4,482,000 bushels exported in the corresponding period of 1929.

\* \* \*

Harold Anderson, Federal grain supervisor at this port, has returned from a motoring trip through New York state and Canada, during which he visited his old home in Buffalo.

\* \* \*

John Shipley Wailes, of J. B. Wailes & Sons Company, grain, hay and feed dealers for many years at Arlington, Md., died suddenly on July 30 from injuries he received in an automobile accident the day previous near Chambersburg, Pa. With him in the car at the time of the accident were his wife and two daughters, all of whom were more or less seriously hurt.

\* \* \*

An incident is related of a transaction which recently took place between a Baltimore grain firm and a grain shipper on the eastern shore of Maryland. The shipper had wheat to sell, but needed a car of corn. The local grain man paid him 86 cents a bushel for his wheat and sold him a car of 2 Yellow corn at \$1.05 a bushel. Corn is scarce and higher than wheat at most points east and west.

\* \* \*

Ferdinand A. Meyer, chairman of the building committee of the Baltimore Chamber of Commerce, left Baltimore on July 16 to spend the remainder of the summer on the coast of Maine.

\* \* \*

To study the costs of handling cargoes from ship side to land carriers and from land carriers to ship side, Dr. Boris Stern, of the Bureau of Labor Statistics, Department of Commerce, was in Baltimore the past month. His duties involve similar studies at 22 major American ports on the Atlantic, Pacific, and Gulf coasts. Dr. Stern reported the new Port Covington development of the Western Maryland Railway Company in this city the equal of any modern docking equipment in the United States.



WITH every evidence that all grain elevators along the Great Lakes and the St. Lawrence River will be filled to capacity with storage grain long before the 1930 season of navigation is brought to a close, vessel owners believe there will be an early demand for tonnage to hold winter storage cargoes at Buffalo and other ports. The storage capacity in commercial elevators at Buffalo under normal conditions is approximately 22,000,000 bushels, although Buffalo elevators have a total capacity of 46,000,000 bushels. A large part of the elevator capacity is privately owned and is not available for commercial storage purposes. With unusually low rates prevailing for the movement of grain from both the American and Canadian Head of the Lakes down to Buffalo and Port Colborne, owners of large fleets on the Great Lakes will welcome an opportunity to charter their ships at a fair rate to hold winter storage cargoes at this end of the route. Operators will be inclined to accept these offers rather than continue their steamers in operation with the prospect of continued low rates and probable port delays toward the end of the shipping season.

\* \* \*

Even with a big storage fleet in Buffalo, receipts of grain at terminal elevators will fall far behind the record of 278,000,000 bushels handled during the 1928 season. Current estimates are that the season's grain receipts will be between 175,000,000 and 200,000,000 bushels including the grain which will be held in the harbor when ice and weather conditions force the closing of the lakes to navigation.

\* \* \*

There will have to be a marked improvement in grain receipts during the closing months of the season to reach even the minimum figure mentioned for the 1930 Great Lakes' movement. Arrivals at terminal elevators are running from 15,000,000 to 20,000,000 bushels behind the corresponding period of 1929 in which year the lake grain received at Buffalo totalled 178,000,000 bushels.

\* \* \*

Grain ships of American registry are experiencing considerable difficulty on the Buffalo-Montreal route via the Welland Ship Canal due to alleged preferences being given to unloading of Canadian-owned ships at the Montreal end of the route. Steamers of American registry are being held in

port at Montreal as long as four and five weeks while Canadian-owned boats are given space at dominion elevators and are back again at Montreal before the American boats can be unloaded, according to complaints voiced in shipping circles. Port delays of this character are ruinous to the earnings of steamship companies. Because of conditions prevailing in the grain trade only a few of the American-owned steamers operating in the Welland Ship Canal service are in operation this season. With the Canadian route clogged, it is unlikely that the idle ships will see any service this year.

\* \* \*

The International Milling Company, owner and operator of the Lake & Rail elevator, announces plans for enlarging the capacity of the structure at Childs Street and the Buffalo River by 1,300,000 bushels, thereby bringing its total storage capacity up to 4,800,000 bushels. Contracts for the cassion work on the foundations of the elevator already have been awarded and construction work will be started immediately. The estimated cost of the new addition is \$350,000. The new unit will be built on the north side of the present grain elevator. There will be 100 storage bins, 150 feet high. The Lake & Rail elevator is one of the newer grain storage houses in Buffalo, having been established three years ago. With the completion of the new unit, the Lake & Rail elevator will be one of largest in Buffalo.

\* \* \*

Operators of canal fleets over the New York state barge canal between Buffalo and the Hudson River are anticipating a very busy season from now until the close of navigation. There is a prospect of slightly higher rates on the canal as grain shippers are in the market for fleets to move tonnage in August and September.

\* \* \*

Riley E. Pratt, prominent Buffalo grain merchant and organizer of the former firm of Pratt & Co., died late in July after an illness of three months. Mr. Pratt was born November 19, 1865, on a farm in Goshen, Conn. Later he moved with his parents to Decatur, Ill., and lived in that city until he came to Buffalo in 1889 as the Buffalo representative of Pratt & Co., grain merchants of Decatur. Later he organized his own firm also known as Pratt & Co. Until the merger of this company with the Husted Mill & Elevator Co., Mr. Pratt served as president. Later the latter concern was re-organized and became part of the Superior Elevator Company, which built the Superior elevator on the Buffalo creek. Mr. Pratt retired from active business several years ago. He was a member of the Buffalo Corn Exchange, the Buffalo Club, and the Country Club. He is survived by three sisters.

\* \* \*

American carriers, in order to meet Canadian rail and water rates on export grain, are to be left free to establish any lower rates necessary to compete at Buffalo with other export outlets. This is one of the important provisions of the decision of the Interstate Commerce Commission which made drastic reductions, amounting to as much as 16 cents per 100 pounds in some cases, on grain shipped from the western territory to north Atlantic and Gulf ports. The efforts of Buffalo grain and elevator interests to get a differential of three cents under Toledo and other western Lake Erie ports to Baltimore and Philadelphia failed, and the commission has greatly curtailed the "free transit" privileges given in the grain trade. The net rates from Buffalo, exclusive of elevator and storage, are 13.5 cents to Boston and New York and 13 cents to Philadelphia and Baltimore.

\* \* \*

The Globe grain elevator at Vincennes Street and the Erie Railroad in Buffalo was destroyed by fire, the cause of which was not determined by the police. The damage is estimated at \$45,000 but the company reported there was \$65,000 insurance on the structure which is owned by the Harlem-Kensington Corporation of which Thomas F. Perry of Forks, N. Y., is president. The mill, formerly owned by the Globe Elevator Corporation, recently was sold to Mr. Perry, but had been closed for a period of almost two months. Plans were under way for re-opening the elevator at the time of the fire.

\* \* \*

John A. Seymour, Jr., president of the Seymour-Wood Grain Company, is planning a two weeks' fishing trip at Lake Nippising in northern Canada where the fish never have taken a mail order course in the correct and polite way to avoid sparkling new tackle. George B. Wood, of the same firm, which occupies a prominent place in Buffalo grain circles has made no plans for his summer vacation trip. Mr. Seymour promises a picture of one s-o-o long, if he's lucky.

\* \* \*

J. G. McKillen says it's too hot for a vacation, especially when the cool breezes from Lake Erie blow into his office windows and make it a comfortable place to be during this hot, dry summer. He says that he may go later in the year when the grain dealers hold their annual convention at Chi-

cago in October. As Mr. McKillen is an enthusiastic aquatic follower, it is safe to say he will spend whatever leisure time he finds somewhere on the lakes sailing, canoeing, fishing, and resting up for the busy fall season.

\* \* \*

What a busy summer this must be for the Lewis Grain Corporation, as no summer vacation trips have been planned, while over in the offices of the McConnell Grain Corporation, only the girls have been away while Mr. McConnell says he has been too busy even to give any thought to a summer trip. However, Miss Clara M. Landel, his secretary, spent her vacation down the St. Lawrence River in the vicinity of the Thousand Islands and Miss Helen Binko, another office assistant, remained close to Buffalo during her two weeks.

\* \* \*

William H. Dildine and Charles H. Storer, of Rochester, have been appointed equity receivers by Federal Judge Simon L. Adler in United States District court at Buffalo for James Vick's Sons, Inc., wholesale and retail grain and seeds, 97 St. Paul Street, Rochester. The complainant in the equity receivership proceeding is W. J. Eldering & Sons, Ltd., of Haarlem, Holland, with a claim of \$3,002. The suit was brought on behalf of all creditors to prevent disintegration of the business and the institution of a multiplicity of suits by unsecured creditors with past due claims. The receivers, whose joint bond was fixed at \$5,000, have been given authority to continue the business until such time as liquidation or a possible reorganization can be effected. The complaint says the company is solvent but lacks sufficient capital with which to continue operations and that the company is unable to borrow funds to continue business because of its impaired credit condition. Assets aggregate \$87,991 of which total current assets as of June 30, 1930, are reported to be \$33,543. Liabilities are claimed to be \$34,241 of which accounts payable, most of which are past due, are \$25,011. The capital is \$53,700 of which preferred shares are \$10,750 and common stock \$43,000. James Vick's Sons, Inc., consented to the appointment of Federal receivers. It was said the company has upwards of 100 stockholders. Whitbeck & Dye, of Rochester, appear as attorneys for the complainant while Carol Whitman appears as attorney for the defendant.

\* \* \*

Grain continued to increase in Buffalo elevators early this month although the movement of the new crop from the Northwest has not yet started. The total in commercial elevators and afloat in Buffalo, August 4, was approaching 23,000,000 bushels, being greatly in excess of the average holdings this season.

\* \* \*

Terminal elevators handled 54,540,000 bushels of grain this season up to August 4, according to official reports as compared with 72,333,000 bushels for the corresponding period of 1929. For the same period, Montreal elevators handled 37,636,000 bushels as compared with 57,540,000 for the same period of 1929.

\* \* \*

The first charter of a boat for storage of grain at Buffalo this winter was made early in the month at five cents. It is expected that most of the chartering for early loading will be made at this figure. A slightly lower rate may prevail for later loading and storage at Buffalo.

\* \* \*

Grain still remains almost stagnant in Great Lakes shipping circles with only an occasional ripple to show there is some interest in tonnage. Shippers at the American head of Lake Superior are offering 1¾ cents for tonnage to Buffalo which is about a quarter of a cent under the rate which has been prevailing. Elevator officials say there is little immediate prospect for relief in the grain situation, but are hoping that grain will start to move more freely before September 1, when the new crop starts coming down the lakes.

\* \* \*

The monthly report of the Lake Carriers Association covering the month of July indicates that wheat is moving fairly well from the storage elevators at Fort William and Port Arthur at the Canadian Head of the Lakes. During the week ending August 2, the report showed that stocks dropped from 38,764,290 bushels to 36,758,978 bushels.

\* \* \*

Reporting to the Great Lakes Regional Advisory Board on the outlook for the movement of grain during the third quarter of the year, W. E. Maloney, traffic commissioner of the Buffalo Corn Exchange, estimated that 17,000 cars will be loaded with grain during the present quarter compared with actual loadings of 22,692 cars for the corresponding period of 1929. With respect to flour, feed, and other grain products, Mr. Maloney forecasted the loading of 45,772 cars as compared with 42,382 cars for the third quarter of 1929. Mr. Maloney, who is chairman of the Great Lakes Regional Advisory Board's committee on grain and grain products, consulted 20 leading authorities in this field before making his estimates of car requirements. He received



eight replies which he termed good; nine replies were fair and three were poor as interpreted from the viewpoint of car loadings in the third quarter. Buffalo is considered the largest grain loading port on the lower lakes so the report of the Buffalo Corn Exchange is regarded as especially significant of the trend from July to the end of September.

## ST. LOUIS FAIRMOUNT CORRESPONDENT

THE St. Louis market, since the movement of new wheat started, has been receiving a liberal share of the countries' movements. An immense run of Missouri Soft Red Winter wheat has been received here and has been placed in storage. The quality is the finest ever received in this market, being heavy and dry, the greater portion of it grading No. 1 Red. As this is being written, the movement of Hard wheat is showing an increase, wheat being received here daily from northern Missouri, Iowa, Nebraska, Kansas, and Illinois. The quality is also excellent, the majority of the receipts being No. 1. With increased facilities for handling wheat in this market, excellent business is anticipated.

W. J. Klostermann, president of the Klostermann Patton Grain Company, with offices at No. 21 Merchants Exchange Building, St. Louis, is one of the alert dealers of this city and has a large clientele of grain shippers in Missouri, Illinois, Iowa, and Nebraska. He is a shrewd trader and always awake to the possibility of a trade. He is out-spoken and fearless and stands for what he thinks is right.

He is still a young man and has been very prominent in all merchants' exchange activities, being a director of the exchange for one term, president of the local grain club, and a member of various committees. Mr. Klostermann has been identified with the grain trade since he left school at 17 years of age.

His first experience was as a sampler and private inspector of grain for Barron & Wilson, who were grain samplers for the trade until they were taken over by the St. Louis Merchants Exchange Department of Samples and Weights. In this position Mr. Klostermann obtained his first insight on grains and qualities of all kinds of grain which has proved a valuable asset to him in his later activities in the grain business.

After four years of sampling grain, he secured a position with the grain firm of Morton & Co., with whom he remained for 10 years, representing the firm as a traveling representative and also on the floor of the exchange. He has made many friends among the country grain shippers, many of whom are now numbered among customers of the Klostermann Patton Grain Company which he joined after leaving the employ of Morton & Company.

Mr. Klostermann is happily married and has a family of three children. He has always been athletically inclined and in his younger days was active in baseball and was of the first baseman of St. Leo's baseball team which was famous throughout the city and surrounding towns. He is still a patron of baseball and frequently can be seen in the grandstand at Sportsman's Park. He also is interested in soccer football and for many years was manager of the St. Leo's soccer team which was prominent in the local field. His later activity along athletic lines is on the links. He is a member of the North Hill Country Club and plays a fair game of golf.

Mr. Klostermann is very modest and is not inclined to push himself forward in any way. He is also camera shy and we regret to say that it is an impossibility to get his picture. He claims he has never had a picture taken except in a baseball group, so you will have to draw your own conclusions as to his personal appearance.

The following transfers of memberships are noted: Fred J. Thatcher, representing the Marshall Hall Grain Company, from C. F. Smith; John H. Caldwell, Jr., representing the Updike Grain Company, from Ivan F. Wieland.

Paul W. Pritchard, connected with the Iglehart Bros. at Evansville, Ind., was a visitor here on July 16 and 17, and made large purchases of wheat.

The Ralston Purina Company is entering into an extensive expansion plan at its Eighth and Graoitt Street plant, replacing the original wooden structure with a new concrete modern elevator. It is also enlarging its sack storage and handling facilities. Over \$500,000 will be expended. This is the parent plant of the organization; the elevator that is being

replaced was the first elevator structure that the company had in the early days. This is only one of the many plants which it now has in the United States and Canada.

On July 24 the Missouri Pacific elevator began to transfer wheat into its new house and since that time has unloaded into the new house over 1,000,000 bushels. It has a total capacity now of 4,000,000 bushels. The Continental Export Company, which operates the Missouri Pacific elevator, is the largest handler of wheat on the St. Louis market and has been a vigorous buyer since the early movement. Julius Maher, in charge of the St. Louis office, does the buying.

Mrs. Marie Adele Mullally, beloved wife of Daniel S. Mullally, vice-president of the Langenburg Bros. Grain Company, and a member of the merchants' exchange, died on August 5. The funeral was held on the eighth at All Saints Church, burial being at the Calvary Cemetery. Mr. Mullally is one of the largest hay receivers in this market and has a national reputation as a hay man. Sympathy is extended to him over his loss.

## LOUISVILLE A. W. WILLIAMS - CORRESPONDENT

A VERY unusual condition exists in the grain trade at the present time, one indicating that while there will be excellent over-winter business, it will be at the expense of future good business in Kentucky. The severe drought which started in the state in the early spring, more than four months back, has burned up the crops. Much of the state will not have a second cutting of any hay. Corn has been burned so badly that much of it will only be cut up for ensilage. Without corn and hay the farmers cannot afford to feed stock over the winter, and they have been offered it at from 10 to 20 times normal quantities at the stock market or yards points. Another feature has been shortage of stock water, so severe that all tank trucks and wagons of most of the cities, counties, and road commission have been hauling water to farms. Oil companies have steamed out their trucks and pressed them into water hauling service, while the United States Quartermaster's Depot at Jeffersonville, Ind., has started supplying water wagons to haul to farms. Many tank cars of refiners and others are hauling water to the small towns, and ice plants, laundries, etc., in some points of the state have been receiving their water in tanks.

Livestock markets are way down and stock sold has been at severe sacrifice. This means that the livestock industry has taken a serious loss and one that will be felt for years to come in a state that was making much headway as a dairy state. Grass is so burned up over most of the state that it has been abandoned and stock moved to other localities. Milk companies have helped a little by advancing prices a cent a gallon for milk. Cream buyers have advanced butterfat buying prices by three cents.

In central Kentucky about the big horse farms, dairy farms, etc., visitors are now barred in several instances, due to danger of fire, with everything so dry. A day after visitors were barred from Man o' War's barn, on Fairway Farm, another barn a mile away on the same farm burned with loss of \$12,000. Edward R. Bradley, prominent horse breeder, also lost a barn. Quite a number of general livestock barns, dairy barns, etc., have burned. Grass fires have been numerous and dangerous.

Prospects are for good demand for fall sowing seeds and grain, especially rye, wheat, some Timothy, Red Top, orchard grass, seed oats, etc., that will make green stuff quickly. Of course, rains will have to come before planting will be possible. The farmers are in serious straits for green stuff and it is feared that much grass is so badly burned that it will not come back. Kentucky for the year is a fraction under 15 inches below normal in rainfall and has had less rain, as per normal pro rata, than any state in the union.

Edward Scherer, of the Bingham Hewett Grain Company, remarked that the very strong market was tending to reduce immediate interest in grain to some extent.

It is realized that re-seeding and carrying farmers and their stocks through the winter will be a serious problem as they have lost their crops. In addition to loss of the corn crop, which cannot be saved except in a very small percentage even with early rains, the "big money" crop, tobacco, will not make more than 30 to 40 per cent of normal pound-

age from an acreage 10 per cent greater than the big acreage of last year. That means serious distress for farmers and more selling of livestock, poultry, etc.

Some jobbers of seeds, feeds, etc., report that collections are poor, as the country retailers can't get any money. The big problem is how the farmer is going to buy. Merchants can't finance them. Banks may and again they may not. Federal aid may be needed. Some optimists come back with the argument that farmers always manage to come back. However, they have never been through anything like this. Hay is so scarce that most farmers are holding it back and the market has advanced to around \$20 to \$21 on No. 1 hays, with very little difference between grades.

With high grains and strong demand for feed, a stiff market is in sight. Mills are short on flour orders and have sold so much feed that they are reporting sold up for 60 days or more and no more orders will be taken for the time being. Manufactured feeds are way up.

Wheat movement has been early and strong and farmers now wish they had held. Local mills are full up and using outside storage while the public elevators are contracted to capacity.

The Kentucky Public Elevator Company, with C. A. Viller in charge, reports that it is rapidly filling up and has contracted all available space for long storage wheat. About 500,000 bushels of grain are now in hand. Daily handlings are largely on inbound stuff for storage.

"The best wheat ever seen," is the general report of the trade. One house reported that of 200,000 bushels of wheat only about 10,000 graded under No. 1. Wheat has been coming in at 10 to 11 per cent moisture, as against 13 or 14 per cent last year. Wheat is weighing 60 to 62½ pounds to the bushel this year and is so bone dry that there is danger of cracking in handling, or long spout drops. An elevator man stated that a bin built for 25,000 bushels, but which would seldom hold it, and which took but 23,000 last year, took 25,400 this year, due to the hard, flinty quality of wheat.

There is so little hay available this year in Kentucky that much hay will probably have to come in from northern or western territory over the winter.

The drought in Kentucky this year is expected to greatly retard the dairy industry. Kentucky's long arguments for dairy development has been fine water and grass supply and longer months of grass than the northern states. Pastures all over the state now are burned a dull brown. In many districts the only green stuff to be seen is an occasional weed and here and there some Alfalfa that is bravely making an effort to come up again. Other nearby states have been hurt, but apparently none of them as seriously as Kentucky where the drought has been longer. At Louisville there was some rain in May, but not enough to do much good. Since then there hasn't been a shower sufficient to lay the dust. Water rationing is being ordered in many cities of the state located on small streams, or depending on lakes, etc., which have dried up. Mountain towns on headwater streams are in especially bad condition and fire hazard at all points, other than on the Ohio River and larger streams, is serious.

## KANSAS CITY KENNETH FORCE CORRESPONDENT

ARTHUR M. HYDE, secretary of the Department of Agriculture, here August 4, predicted that the possible heavy carryover in wheat would be offset by the loss in the corn crop as a result of drought. The department now is stressing the use of wheat as feed.

His ideas came in for severe criticism, however, by J. E. Houston of the Frederick-Houston Grain Company, who pointed out that Missouri farmers raised 17,300,000 bushels of wheat and 126,424,000 bushels of corn, and that three-fourths of the farmers of the country depend largely on corn. Over 2,000,000,000 bushels more corn are grown than wheat, he said, and the country's meat and dairy products are by-products of corn. He further brought up the fact that (at the time he was making the statement) wheat was 40 cents below the market of last year while corn was only 4 cents off.

Mr. Houston scored Alexander Legge, also, saying that 27 years ago he had sold binders for Mr. Legge's company at \$95 when wheat sold for 80 cents. Today these same binders sell for \$200 and the wheat for 60 cents. Too, Legge's company, he



said, was shipping more binders to foreign countries "to raise more wheat to compete with the poor American grower already almost ruined by lack of foreign demand."

\* \* \*

William H. Kelly, 72 years old, for many years associated with the grain and milling business here, died August 3 at his home. Mr. Kelly came to Kansas City from Edgerton, Kan.

\* \* \*

Mrs. N. S. Shannon, 65, wife of N. S. Shannon, president of the Shannon Grain Company, died July 12 at their home here.

\* \* \*

The new crop of barley, which appeared on the board of trade for the first time last month, was of exceptional quality. In fact, most local grain men claimed it was the best ever seen here. Fourteen cars were received from various points. Six of these graded No. 1, weighing from 48 to 49½ pounds, perfect color and size and unusually dry. Three cars were No. 2 special, weighing from 47 to 48 pounds, while the rest were of lower quality. Plenty of moisture and a dry harvest were given credit for the exceptional quality of the crop. Last year's crop ranged from 40 to 45 pounds and No. 2 cars were rare.

\* \* \*

Average protein content of 2,804 cars of wheat inspected by the Kansas and Missouri state inspection departments the week of August 4 was 12.37 per cent, compared with a 11.99 per cent average for the inspections the week previous.

\* \* \*

H. M. Stratton, of the Stratton Grain Company, Chicago, is an applicant for membership on the Kansas City Board of Trade on transfer from W. C. Smith, formerly manager of the local offices of the Larabee Flour Mills. The Stratton company has an elevator at St. Joseph, Mo. The membership brought \$7,500, including the transfer fee. C. M. Hardenbergh has returned from Minneapolis to manage the local offices of Larabee.

\* \* \*

Starting at a time when local public elevators held 18,000,000 bushels of old wheat, Kansas City's grain handling facilities proved their efficiency in July. Receipts were the second largest for any month on record, over 35,250,000 bushels. The record month was July last year when more than 37,500,000 bushels were received. The market was open and operating freely all month with no sign of congestion. Inbound cars were disposed of quickly. During the month stocks of wheat in public warehouses increased 6,000,000 bushels, 17,500,000 bushels were shipped out and the rest represents mill purchases and private storage. The 17,500,000 bushels shipped out represents a record. Last year in July the record of 16,500,000 bushels was established.

\* \* \*

Fire of undetermined origin in the basement of the J. G. Peppard Seed Company, 1108 West Eighth Street, caused a \$400 damage to contents and buildings, July 19.

\* \* \*

Suit against the B. C. Christopher & Sons Grain Company, of Kansas City, in an attempt to hold it responsible for the speculations of an employee of the Farmers Co-operative Grain & Supply Company, was filed by the latter company in Federal court here. The petition alleged that the grain firm had violated the rules of the Kansas City Board of Trade in permitting J. W. Ling, manager of the mutual company's elevator at Beeler, Kan., to speculate in grain futures without a permissive resolution of the farmers' organization. The transactions resulted in a loss to the organization of \$6,250. The petition asked that the grain firm be compelled to remit the loss.

\* \* \*

Al Swanson, manager of the Co-operative Equity Exchange of Copeland, the world's largest equity, has suggested that if everyone in the United States would eat only one more slice of bread a day it would take, in the course of a year, 60,000,000 more bushels of wheat. He advocated the use of advertising—"Eat One More Slice."

\* \* \*

According to observers, Governor Clyde M. Reed's defeat in the Kansas primaries will be taken by most people to mean a vindication of the Federal Farm Board's policy of wheat acreage reduction.

\* \* \*

The Zenith mill, Kansas City's oldest flour mill, which has been in operation for nearly 50 years up until last year, was sold August 17 to the Southland Cotton Seed Products Company, a North Kansas City firm, for a consideration said to be slightly less than \$15,000.

\* \* \*

Another report on the situation, so far as it concerns Kansas, is that of J. F. Jarrell, head of the agricultural department of the Santa Fe Railroad, considers Kansas' surplus wheat probably will prove a blessing instead of a drug on the market, and says that it is fortunate for the state that the

yield has turned out larger than estimated. Few farmers are talking about the surplus, they're talking about feeding it to stock.

\* \* \*

The merger of Gold Bond Feed Mills and the Quisenberry-Hobbs Company, Kansas City, both nationally known in the manufacture and distribution of poultry and livestock feeds and remedies, was completed last month. The combined companies will operate as one organization with T. E. Quisenberry, president; V. O. Hobbs, vice-president; H. R. Showalter, secretary-treasurer; and T. C. Quisenberry and Walter Hobbs directors. The Quisenberry-Hobbs Company will continue to be the corporate name.

A mill in Independence and one in Kansas City, Kan., will be operated by the new organization, which serves dealers in more than 20 states. Seven district salesmen, in addition to a large number of local representatives, already are employed in the sales territory by the company. About 25 persons will be employed in the two mills in the summer and from 50 to 75 the remainder of the year.

Despite business depression, the combined records of the merged companies, according to Mr. Quisenberry, president, show nearly 100 per cent increase this year over the same period in 1929. Additional machinery, warehouse, and office space will be required within the next few months, it is believed, and plans are being developed for the more extensive manufacture and distribution of the company's products.

\* \* \*

An addition to the Corn Products Refining plant here, which will involve an expenditure of between \$2,000,000 and \$3,000,000 and which will create 400 new positions, is in immediate prospect. These potentialities hinge upon the definition of the word "sugar." The refining company now has pending with the Department of Agriculture a petition bearing upon this point and the disposition of it will determine whether Kansas City is to achieve the new addition. Present standards or definitions of the Department of Agriculture define sugar as a product from cane, beet, maple, or palm. This definition was formulated, it is said, before the refining company developed a commercially practicable method of refining corn sugar. This was five or six years ago. Since the definition of the Department of Agriculture was made before then, it fails to recognize the present potentialities and values of corn sugar.

The petition contends that the differentiation between corn sugar and other sugars bars the former commodity from a wide field of use. Manufacturers of a long list of important food products are required by the Department of Agriculture to state that fact on the label of the package. The result is that makers of the affected commodities decline to use corn sugar because the consuming public, they believe, regard the special label notation as indicative of inferior quality or adulteration, which is not the case.

The refining company has made a careful and exhaustive survey and contends that if the label were not necessary the demand for corn sugar would increase corn consumption 20,000,000 bushels a year. This would be cash corn, and in face of the estimate that more than 90 per cent of the corn crop stays on the farm to be fed, this 20,000,000 bushels would materially improve the cash corn market.

The enlargement of the plant here would double its corn grinding capacity, increasing it from 20,000 bushels of corn to 40,000 bushels, daily. New warehouses, new equipment for the generation of steam and power, and additional manufacturing buildings would be included in the expansion.

Corn sugar goes into food products such as bakery goods, confections, including ice cream and chewing gum, packaged desserts, flours prepared for special purposes, flavoring and food coloring, vinegar, and jelly powders. Industrial uses include wood dyeing and dry dyes, textile preparation, tanning, the production of artificial silk, and many others.

\* \* \*

The decision of the interstate commerce commission July 25, re-adjusting and, in the Kansas City district, reducing freight rates on grain, definitely established Kansas City as a basic price-making center for the grain producing territory of the Southwest. Grain men and shippers were enthusiastic, pointing out that the Southwest wheat grower would benefit, and that the new schedule removed the handicap of prejudicial rates from the Northwest. Kansas co-operative farm organizations also were pleased.

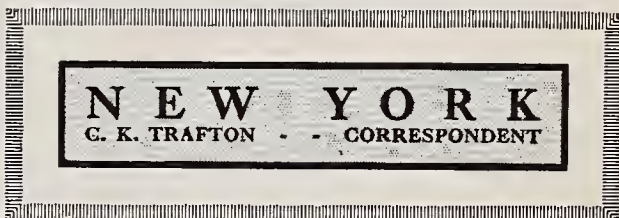
\* \* \*

Representatives of the major farm groups in Kansas—the Kansas farm bureau, the Equity Union, Farmers' Union, the Grante, the wheat pool, Farmers' Commission Company and the state board of agriculture, met here July 22, ostensibly to discuss acreage curtailment. However, they refused to express themselves either for or against the farm board or its officers, or Governor Clyde M. Reed of Kansas, and took no action on the 10 per

cent acreage reduction suggested by the farm board. They did, however, in a resolution, suggest that the farm board and the National Grain Corporation keep in closer touch with its farmer members, and that there should be a closer understanding between the two. Ralph Snyder was chairman of the meeting.

\* \* \*

The Kansas State Agricultural College has adopted the policy that for eastern Kansas and that part of central Kansas where wheat is handled by binders and threshers, it should be used only as a rotation crop and to furnish such straw as may be needed on the farm. But in central and western Kansas, where wheat is grown on large acreages and at low costs, the college does not believe there should be reductions in wheat acreages except to carry on normal and worthwhile farm activities. The wheat train throughout Kansas this year carried this message in Bulletin No. 80, which was freely distributed. The train carried speakers of outstanding importance on wheat and drew enormous crowds at all points.



THE mid-summer "doldrums" was just about as noticeable in the securities market on the produce exchange during July as it was in all other stock markets. Here, as elsewhere, there was a marked disposition among all concerned to follow the example of the famous Mr. Micawber and "wait for something to turn up." Doubtless what they, as well as their colleagues all over the country, were waiting for principally was convincing evidence of a revival of industrial activity and the first signs that commodity markets, after their prolonged declines, had reached the long-desired "turn." At any rate, the total sales of stocks on the exchange for the month were only 364,136 shares, compared with 558,807 shares during June, and with 1,733,445 during July, 1929. The total value of bonds traded in was \$60,000, compared with \$297,000 during June and \$36,000 during July of last year.

\* \* \*

Barnett Faroll, head of the commission firm of Faroll Bros. on the Chicago Board of Trade, was on the floor of the produce exchange for a brief visit early this month.

\* \* \*

James E. Bennett, head of the big "wire house" of James E. Benneett & Co., member of the Chicago Board of Trade and all other leading stock and commodity exchanges, spent a few hours last month with his many friends in the grain trade on the produce exchange.

\* \* \*

John J. Hildebrand, of H. C. Bohack & Co., operators of one of the largest chain store systems in the country, was elected to membership in the produce exchange at the early August meeting of the board of managers. Arthur Freed, securities dealer, was elected to membership at the same.

\* \* \*

Henry Leverich, an active and popular member of the grain trade for many years, is no longer manager of the grain department in New York for commission house of Jackson Bros., Boesel & Co., The announcement posted on the bulletin boards of the exchange stated that he had been succeeded by his former assistant, Henry S. Burgomaster, who has been connected with the firm's office here for a number of years.

\* \* \*

Sam Finney, for many years an active member of the grain trade on the Chicago Board of Trade, was one of the early August visitors on the produce exchange.

\* \* \*

William M. Gavigan, of Funch, Edye & Co., the old ship brokerage firm who recently resigned his associate membership in the produce exchange, has been elected to regular membership.

\* \* \*

Fred. S. Lewis, president of F. S. Lewis & Co., one of the oldtime grain commission firms on the Chicago Board of Trade, paid a brief visit to his friends on the produce exchange recently.

\* \* \*

John Allsop, of Sanderson & Son, Inc., one of the oldest houses in the steamship agency business, is an applicant for admission to membership in the exchange.

\* \* \*

The market for tickets of membership in the New York Produce Exchange was almost entirely lifeless during the past month. As a matter of fact, judging from the best information obtainable



from reliable sources the only transaction occurred about the middle of July when a "regular" membership was sold for \$7,200. They are now quoted nominally at \$7,000, while the nominal value of associate tickets is \$3,500.

\* \* \*

Among the visitors on the produce exchange during July were: Siebel C. Harris, formerly vice-president of Cross, Roy & Harris, grain and provision merchants on the Chicago Board of Trade, and Killian V. R. Nicol, also a well-known member of the board of trade. The latter has long been associated with the stock and grain firm of Scott, Burrows & Christie, members of the New York Stock Exchange since 1889, and Mr. Harris is now identified with the same firm following its absorption of Cross, Roy & Harris.

\* \* \*

Leon Woolf, a member of the firm of E. Lowitz & Co., leading commission merchants on the Chicago Board of Trade and other large exchanges, was introduced to members of the grain trade on the produce exchange late in July. Mr. Woolf came east to assist in "relief" work (not farm relief) during the vacations of various members of the New York staff.

\* \* \*

Members of the produce exchange, and especially the veterans of the grain trade, were deeply grieved on the first day of August to learn that Alfred T. Martin had passed away on July 31. Mr. Martin, who was a member of the Bartlett Frazier Company and for a number of years past represented them actively on the Chicago Board of Trade, previously acting as manager of their office on the New York Produce Exchange. He became a member of the exchange on January 4, 1883, when he was associated with the grain and provision firm of Wyld & Marshall. Mr. Martin, who was 65 years of age, had always been an active and aggressive member of the trade and, in addition to the high esteem in which he was held because of his business principles, enjoyed universal personal popularity because of his friendly, jovial nature.

\* \* \*

The death of John A. Anger was announced on the produce exchange on July 28 and evoked expressions of regret from many old-time members, especially in the flour trade. Mr. Anger, who was 79 years of age, was president of the Anger Baking Company, and his death was caused by a heart attack while riding on a subway train between Grand Central Station and Fourteenth Street.

\* \* \*

Announcement of the death of Charles W. McCutchen, aged 85 years, was posted late in July. Mr. McCutchen, who had retired several years ago as head of Holt & Co., one of the oldest flour export houses in the country, was a very active and popular member of the trade for many years. In spite of his advance years, he had been playing golf at his summer home on Lake Placid, N. Y., on July 26, the day preceding his death. He was a resident of North Plainfield, N. J., where he was also active in business for many years.

\* \* \*

The grain and feed brokerage firm of Abel-Whitman Company, Inc., was dissolved by mutual consent on July 15, according to an announcement posted on the produce exchange. The business will be continued by Joseph A. Abel, Jr., under his own name. Paul Whitman announced that he would continue in the brokerage business under his own name.

## MINNEAPOLIS

EDWIN O. WELDE CORRESPONDENT

THE Minneapolis Civic and Commerce Association has launched a campaign to urge every citizen to eat more farm products and thus eliminate the agricultural surpluses. "Eat one more slice of bread each day and help the farmer," will be the slogan of the campaign. Statistics compiled by the Civic and Commerce Association in preparation for farm relief movement, show that the wheat surplus of the nation would be entirely used up if every citizen would eat one slice of white bread daily.

The food consumption as developed by civic and commerce officers has been approved by the board of directors of the association in the following resolution:

"It is moved the board of directors of the Minneapolis Civic and Commerce Association approves the campaign for increasing domestic consumption of wheat, dairy, meat, and other farm products along the lines determined by the best health and economic practices."

As one of the first moves in the campaign to

provide farm relief of a practical nature, association officials are planning a series of conferences with medical and health organizations, industrial leaders, millers, women's organizations, public officials, farm leaders, and others. Letters are being prepared for immediate mailing to Federal authorities and national group leaders whose activities bring them into contact with the farming and general economic situation.

\* \* \*

The North Dakota-Montana wheat pool, of which George E. Duis is president, recently purchased 44 country elevators including four subterminals, from the Powers Elevator Company of Minneapolis and Duluth. The purchase gives the wheat pool ownership of 100 elevators, with combined interior storage space of 3,000,000 bushels. In addition, the pool owns and operates a modern terminal elevator in Minneapolis.

\* \* \*

L. E. Brown, of the Brown Grain Company, was elected president of the Minneapolis Grain Commission Merchants Association at the annual meeting held on August 5. He succeeds E. A. Cawcutt, who has been made grain manager for the Northwest Grain Association. M. B. Gold, of the Benson-Quinn Company, was elected vice-president. J. H. McEnary is secretary.

\* \* \*

New rates on grain and grain products, ordered by the Interstate Commerce Commission to become effective October 1, will not create very drastic changes in Minnesota except in the northwest portion of the state where rates will be depressed because of competition of Canadian railroads, declares A. L. Flinn, rate expert of the Minnesota railroad and warehouse commission. The principal change is the requirement that coarse grain hereafter shall pay the rate applicable on wheat instead of being 10 per cent less than the rates on wheat as it has been the practice to charge for the last 25 years.

\* \* \*

Twenty thousand bushels of wheat were loaded on three Mississippi River barges in St. Paul, August 9, for shipment to the International Milling Company, at Davenport, Iowa. The grain, loaded at the Farmers Union Terminal, is the first to move south during the current grain season.

\* \* \*

Fire caused by spontaneous combustion destroyed the Andrew Boyum elevator at Lanesboro, Minn., the night of August 8. Nearby sheds were also destroyed. For a time the fire threatened the entire business district.

\* \* \*

An order for a hearing August 18 on the petition of the Baldwin Flour Mills Company, of Minneapolis, for a receiver to liquidate its affairs has been filed by District Judge E. F. Waite. The Baldwin Company, with headquarters in Minneapolis, operates mills in Graceville, Moorhead, and Browns Valley. The petition asking for authority to dissolve the company points out that the stockholders recently voted such action because the mills are operating at no profit. Uncertainty of the grain and flour market and competition of milling industries concentrated in large cities, is given as the company's difficulties. The company has a capital stock of \$500,000.

\* \* \*

The Quinn-Shepherdson Company, Minneapolis grain firm, has been purchased by the Farmers National Grain Corporation as a step in development of the merchandising organization of the co-operative. The Minneapolis company was retired as an individual organization August 1.

\* \* \*

Edgar T. Hanson, since 1898 prominently identified with the grain commission business in Minneapolis and since 1917 vice-president of Johnson, Case & Hanson Company, died Sunday, August 10, at the Northwestern hospital where he was taken after a heart attack. Mr. Hanson, who was 54 years old, had been in excellent spirits and in good health until a few days before the heart attack. He was active in business and often played tennis. Mr. Hanson was born in Massachusetts and was educated at Lawrenceville Academy. He came to Minneapolis in 1898, joining the F. H. Peavey & Co., where he remained until 1907. At that time he joined with his brother-in-law, Denman F. Johnson, in forming the Johnson-Hanson Company. Through a series of consolidations, the firm finally became known as Johnson, Case & Hanson. Mr. Hanson was secretary until Mr. Johnson's death in 1917. He then succeeded to the vice-presidency. George P. Case, president of the Minneapolis Chamber of Commerce, is president of the company.

\* \* \*

Minnesota has not been as hard hit by the drought as many other states. This is indicated by the crop report given out by the Department of Agriculture. The figures on composite yields of crops by states show that the prospective yield, August 1, as a percentage of the 10-year average (1919-28) for Minnesota was 97.3. This is a decline of 3.7 per cent from July 1. The Winter wheat

forecast for Minnesota is 3,000,000 bushels compared with 3,150,000 last year. Durum wheat for Minnesota is estimated at 2,846,000 bushels compared with 3,381,000 bushels last year. Estimates for other Spring wheat for Minnesota are 12,974,000 bushels compared with 13,413,000 bushels last year.

\* \* \*

The first car of new Spring wheat to arrive on the Minneapolis market was bought by G. A. Morris, of the Electric Steel Elevator Company, from Harry Van Every, of the E. S. Woodward Company, at seven cents over September for experimental purposes. It was from Randolph, S. D., and showed 58 pounds test weight. Protein test was 14.70 per cent, moisture 12 per cent, and dockage 11 per cent.

\* \* \*

Despite the fact that corn crops in states bordering Minnesota have been seriously affected by the long drought, the bulk of the crop in this state is still in good condition. Although it is pointed out by experts that a good rain would be beneficial, the Minnesota crop can go for some time without moisture, if the weather remains moderate. The only damage to the Minnesota crop has occurred around the Twin Cities, where the soil is lighter than in other parts of the state.

\* \* \*

While hot weather cut down yields of small grain in the Northwest and advanced the harvest date, grain rust this year has made little headway and caused only nominal damage, the Rust Prevention Association states in a recent report issued from its Minneapolis office. The survey was based on observations during a 2,800-mile trip in Minnesota, the Dakotas, and Montana, made by an official of the organization. Black stem rust, which appeared in small quantities about the usual time, did not spread and multiply because of dry weather that toughened the straw and made infection by rust very difficult.

\* \* \*

Plans for handling grain, including making loans on stored grains in elevators and on farms, were discussed at the first regular meeting of the board of directors of the Northwest Grain Association following the initial meeting in January. The 26 directors represented districts in Montana, North and South Dakota, Minnesota, and Wisconsin. Grain will be received not only from local member associations, it was announced, but from associations and individuals wishing to try out the service of the new regional association.

\* \* \*

In the face of changing conditions in the world grain market, American grain farmers must place themselves in a position where they can cope with world wide grain production intelligently if they are to continue farming on a profitable basis, Hugh J. Hughes, director of education for the Minnesota Wheat Growers Co-operative Marketing Association, declares. Within the past five years, Germany, France and Italy, formerly among the chief buyers of American wheat, have reduced their foreign grain requirements almost to the vanishing point. Among the reasons American wheat is a drug on the market is that there is under way all over continental Europe, a shift in the bread demands and supplies of the people. France has practically arrived at a self-supporting basis. In Italy, the government has campaigned to increase the wheat acreage so successfully that production has been increased by about 75,000,000 bushels since 1925. Germany has a rye problem, and in order to meet this situation the duty on grain has been advanced to more than the American farmer receives for grain shipped there.

\* \* \*

Construction is nearing completion of a new seed house for the Minneapolis Seed Company, which will be one of the most modern in the Northwest.

\* \* \*

The Sheffield Elevator Company has leased its Elevator K for a year to the Gregory-Jennison Company. The elevator has a capacity of 2,250,000 bushels.

\* \* \*

John Mitchell, of the W. C. Mitchell Company, Duluth, who has been managing the Minneapolis office of the company for some time, will take over the management of the Duluth office because of the death of Carlisle Hastings.

\* \* \*

Nearly 40,000,000 bushels of new grain can be stored in terminal elevators in the Twin Cities and the Head of the Lakes, according to tabulations as of August 2, made by the joint grain transportation committee of the Northwest Shippers Advisory Board. Minneapolis and St. Paul elevators have a total capacity of 53,861,000 bushels for public storage and Duluth-Superior has a capacity of 40,820,000 bushels, according to the report. These figures, however, are exclusive of deduction for stocks, working space, and cars on tracks. About 10,146,480 bushels of the new grain may be stored in private elevators in Minneapolis, there being a total space of 22,635,000 bushels. Taking the deductions of grain in storage at public elevators into



account, the report reveals space available for new grain is 16,233,857 bushels in Minneapolis elevators and, at the Head of the Lakes, 13,278,374 bushels. This, plus space in private elevators of 10,146,480 bushels, leaves a total space available of 39,658,711 bushels for the new grain. The capacity of public elevators in the Twin Cities was increased 500,000 bushels by including the Farmers Union Terminal elevator in St. Paul.

\* \* \*

The Cargill Elevator Company has awarded contract for the construction of a 2,135,000-bushel addition to its Elevator T, which will increase its capacity to 4,000,000 bushels. The addition is to be ready to receive grain the first week in September.

## OMAHA

R. O. HOLMQUIST CORRESPONDENT

IN SPITE of low prices for wheat, all records for heavy receipts in the Omaha market were broken again this year. Monday, July 28, was the peak day with 1,381 cars of wheat received and 100 cars of other grain. Single day records were broken on Thursday, July 24, when all arrivals totaled 919 cars of which 842 were wheat. Total receipts for the week beginning July 28, were 4,309 cars which was also a record for this market. On account of congestion in the railroad yards, the destination weights rule was suspended during that week.

\* \* \*

The new 5,000,000-bushel Cargill elevator started unloading grain July 22, just 60 days after construction was begun. While all work is not yet completed, this elevator has been busy unloading grain 24 hours daily since that time. Schedules call for completion of the new Nebraska-Iowa and Flanley elevators which are being built by the C. B. & Q., by September 15, but it is expected that both will be completed later than schedule date on account of delay encountered in sinking piling for foundations.

\* \* \*

Fire on July 27, caused considerable damage to the top story of the Miller Cereal Mill and also extensive damage to about 60,000 bushels of corn which was badly water-soaked. As a result of the fire, the plant had to be partially shut down but repair work was started at once and the mill is now operating as usual. A large quantity of corn in transit to the mill from interior points was unloaded and stored for the Miller company by the Omaha Flour Mills Company during the period when the plant was out of operation. The loss was fully covered by insurance.

\* \* \*

The Nye & Jenks Grain Company now has its offices in the Peters Trust Building instead of the grain exchange, as formerly. Demand for office space in the Grain Exchange has become so great that the eight-story building owned by the exchange is no longer large enough to take care of it. Talk, common during the boom days of war-time, of building an addition on the 60-foot lot south of the present building which is owned by the exchange, is being renewed.

\* \* \*

Nancy Adams, nine-year-old daughter of C. W. Adams of the Blackhawk Grain Company, is now convalescing after a severe attack of typhoid fever, contracted at a girls' summer camp where an epidemic broke out causing the death of one girl and the illness of several more.

\* \* \*

C. D. Sturtevant, of the Trans-Mississippi Grain Company, and F. P. Manchester, secretary of the grain exchange, returned last week from their summer vacations, spent in fishing at Glenwood, Minn.

\* \* \*

Heat records of all kinds in Omaha have been broken in the past few weeks. The maximum temperature recorded was 111 or one degree over the previous record. The thermometer registered over 100 for 11 consecutive days which is a record for duration of extreme heat here. Rainfall for the first seven months of 1930 is nearly seven inches less than normal and naturally there has been a great deal of complaint of damage to crops, especially corn, as in other sections of the country where the drouth has been even more severe. In spite of adverse conditions, however, the Government predicts for Nebraska a corn crop of about the same size as last year, although about 20,000,000 bushels under the 10-year average. Reports from farmers indicate a wide variance of opinion as to production of corn and as to whether rains received during the past

week will do much good. Late oats also felt the effect of the hot, dry weather, a large proportion of arrivals testing only 26 to 30 pounds a bushel. Early oats were of excellent quality testing as high as 36 pounds. Practically all the Nebraska wheat was uninjured by either heat or drouth. One of the most notable effects of the dry spell is that in some sections of central Nebraska, elevators are paying farmers as much as 15 cents a bushel more for corn than wheat. As a result there is a growing tendency on the part of the farmer to sell off reserve supplies of old corn, feeding instead wheat, oats, and barley.

## GRAIN NEWS FROM BOSTON

By L. C. BREED

Edmund J. O'Connor has been elected an active member of the Boston Grain and Flour Exchange. He is connected with Jackson Bros. Boesel & Co., Boston.

\* \* \*

Jacob C. Silbert, Boston, has been incorporated under the style of J. C. Silbert, Inc. The business to be conducted by the concern is handling flour, bakers' supplies, etc. The capital stock is 100 shares no par value. F. H. Brown is president.

\* \* \*

F. B. Spaulding, Lancaster, N. H., recently suffered the destruction by fire of his granary. It is supposed that the fire was caused by spontaneous combustion. Considerable grain and some farm machinery was burned. The loss was estimated at about \$25,000.

\* \* \*

The Co-operative Farmers, Williamstown, Mass., has been incorporated to take over as a going concern, the Williamstown Farmers Exchange. The company is engaged in handling grain, feed-stuffs, etc. The capital stock is \$25,000. Victor H. Boeckh is the president.

\* \* \*

C. C. Lewis, Buffalo, N. Y., president of Lewis Grain Company and past president of the Buffalo Corn Exchange, was a recent visitor to the Boston exchange.

\* \* \*

Boston wholesale grain dealers state that during July there was a fair demand for grain and toward the close of the month the advance in corn brought about sales for later shipment. Owing to hot and dry weather in the West, the price for mill feed advanced for shipment, but the favorable weather that prevailed in New England during the month for pasturage, caused the demand for feed to be very light. Prices are ruling firm and steady for shipment. South American feedstuffs continued to arrive during the month and further receipts will be received during August. There is a fair sale for Durum wheat for poultry feeding.

\* \* \*

Boston seed dealers state that at present most of their business is the sale of ornamental shrubs and plants, but they are getting some orders for lawn grass seed.

\* \* \*

The receipts of hay at Boston during the month of June were 126 cars and three cars of straw. The falling off in arrivals of hay caused firmness in prices.

\* \* \*

Stocks of grain in regular elevators at Boston, as of July 26, were as follows: Wheat, 1,101,971 bushels; oats, 4,478 bushels; rye, 870 bushels.

\* \* \*

The receipts of grain at Boston during the month of July, as tabulated by the Boston Grain and Flour Exchange, were as follows: Corn, 2,225 bushels; oats, 38,900 bushels; rye, 1,100 bushels; barley, 850 bushels; malt, 2,250 bushels; mill feed, 2,125 tons; cornmeal, 150 barrels; oatmeal, 5,741 cases and 240 sacks.

\* \* \*

The exports of grain from Boston during July were as follows: Wheat to London, 144,000 bushels; wheat to Liverpool, 88,618 bushels; wheat to Rotterdam, 72,000 bushels; wheat to Hamburg, 90,000 bushels.

\* \* \*

Among the visitors to the exchange during the month of July, outside of New England, were the following: N. E. Henry, Milwaukee, Wis.; D. M. Wilson, Montreal, Ont.; R. O. Harris, Denver, Colo.; C. C. Lewis, Buffalo, N. Y.; F. A. Joynes, Hagerstown, Md.; Harry B. Stoker, Duluth, Minn.; H. C. Docksteiner, Bryan, Ohio; A. M. Connors, Omaha, Neb.; H. M. Long, Avondale, Pa.; H. P. Patten, Chicago, Ill.; George Urban, Buffalo, N. Y.; W. L. Brisley, Duluth, Minn.

## POOL HAS 100 ELEVATORS

Purchase of 44 country elevators, including four subterminals from the Powers Elevator Company of Duluth and Minneapolis, has been announced by

George Duis, of Grand Forks, N. D., president of the North Dakota-Montana wheat pool.

Thirty-eight of the elevators are located in North Dakota, most of them on the main line of the Northern Pacific Railroad. Two of the subterminals are at Edgeley and Eckelson. The purchase gives the wheat pool ownership of 100 elevators, with a combined interior storage capacity of 3,000,000 bushels. In addition, the pool owns and operates a modern terminal elevator in Minneapolis. The wheat pool operates in North Dakota and Montana and has a membership of more than 30,000 farmers and business men.

It was founded nine years ago.

## NEW WHEAT MOVING WITHOUT SERIOUS CONGESTION

An increase in storage space and an earlier export movement of wheat have facilitated the handling of the 1930 wheat crop, according to a statement of the Bureau of Agricultural Economics of the United States Department of Agriculture. The peak of the movement from Texas and Oklahoma has passed without serious congestion. Northern Kansas and Nebraska are harvesting large crops and the volume of movement from this territory is heavy, but larger shipments to Chicago, St. Louis, New Orleans and other points have made way for somewhat heavier receipts from this territory.

In view of low wheat prices and the prospect of poor pasture and of a short corn crop in some areas farmers are likely to keep at home more wheat than last year for feed. By holding more wheat farmers may assist in avoiding congestions at terminal markets and heavy discounts for cash wheat caused by such congestions.

The new crop of Hard Winter wheat has been flowing to market at about the same rate as it was marketed last year. The fact that this year's harvest is in general about one week earlier than that of last year has caused elevators at certain terminal markets to fill earlier and has in some instances led to the conclusion that handling and storage facilities will be taxed more severely this year than they were last. The rate of movement of wheat into terminal markets is only one of four important factors to be considered when attempting to measure the adequacy of handling and storage facilities for this year's crop. The other factors are: The size of the crop to be marketed, the capacity available for storing the crop, and the rate of movement out of storage, that is exports and shipments to mills for domestic consumption.

This year's Hard Red Winter wheat crop has been estimated to be about the same as the 344,000,000 bushels harvested last year, but distribution to the crop is somewhat different. Texas and Oklahoma have much smaller crops, while Kansas and Nebraska have larger crops this year.

Storage capacity at terminal elevators and mills has increased by about 40,000,000 bushels since last year's harvest. The fact that stocks of all grain in store at principal markets at the beginning of this year's harvest were 26,000,000 bushels larger than on the corresponding date last year, offsets by that amount the increased construction of terminal elevator space. It is probably fair to assume that wheat will move out of elevator storage to mills at about the same rate as last year. The movement into export trade has been heavier during the early part of the harvest than it was for the corresponding period last year. Exports are likely to continue larger throughout the harvest period because of smaller stocks of wheat in Argentina, a smaller European crop, and a wider spread between Liverpool and United States markets' prices.

The peak movement of the Texas and Oklahoma crops has passed without congestion at Galveston because of the small crop, and because the mills in Texas bought much more heavily during the early harvest season than they did last year. This heavy mill buying was due to the excellent quality of the wheat and relatively low prices, and it left



a relatively small part of the crop to be shipped to Galveston for export. Kansas City is now in a more critical position. The Kansas and Nebraska crops are larger than last year and storage space at Kansas City has not been increased as much as at some of the other terminal markets. However should heavier exports continue, this would permit a larger movement out of Kansas City.

## RECEIPTS AND SHIPMENTS FOR JULY

**BALTIMORE**—Reported by Jas. B. Hessong, secretary of the chamber of commerce:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	4,219,460	3,393,872	628,297	439,813
Corn, bus.	61,988	38,693	.....	.....
Oats, bus.	49,393	29,168	4,372	.....
Barley, bus.	1,800	318,616	.....	241,646
Rye, bus.	2,514	5,323	.....	.....
Malt, bus.	43,029	50,663	11,131	.....
Mill feed, tons	2,631	1,078	.....	.....
Hay, tons	103	33	.....	.....
Flour, bbls.	82,791	75,327	14,612	9,464

**CHICAGO**—Reported by Lyman West, statistician of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	11,854,000	8,078,000	5,378,000	2,131,000
Corn, bus.	5,297,000	6,281,000	3,207,000	4,715,000
Oats, bus.	2,257,000	2,566,000	2,441,000	2,829,000
Barley, bus.	169,000	613,000	104,000	217,000
Rye, bus.	36,000	38,000	121,000	39,000
Timothy seed, lbs.	168,000	103,000	30,000	262,000
Clover seed, lbs.	76,000	160,000	136,000	169,000
Other grass seed, lbs.	472,000	214,000	287,000	202,000
Flaxseed, bus.	85,000	113,000	.....	.....
Hay, tons	4,434	5,323	384	829
Flour, bbls.	993,000	967,000	658,000	645,000

**CINCINNATI**—Reported by J. A. Hallam, chief inspector of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	1,446,400	1,576,400	398,400	225,400
Corn, bus.	435,000	392,000	417,000	379,400
Oats, bus.	252,000	136,000	146,000	144,000
Barley, bus.	8,000	3,200	1,600	19,200
Rye, bus.	4,200	2,800	2,800	.....
Grain sorghums, bus.	1,400	7,000	.....	.....
Mill feed, tons	300	330	.....	.....
Hay, tons	5,665	3,366	.....	.....

**DENVER**—Reported by H. G. Mundhenk, secretary of the grain exchange:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, cars.	1,026	495	28	28
Corn, cars	280	300	150	99
Oats, cars	28	37	13	13
Barley, cars.	36	103	6	17
Beans, cars.	37	34	7	17
Mixed grain, cars	.....	1	.....	.....
Flour, cars	157	37	.....	.....

**DULUTH**—Reported by Charles F. MacDonald, secretary of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	2,703,627	6,056,724	4,020,744	4,834,388
Corn, bus.	177,020	321,414	194,000	356,350
Oats, bus.	119,214	107,391	673,000	140,143
Barley, bus.	180,708	915,687	242,000	1,331,790
Rye, bus.	12,416	245,681	28,387	88,451
Flaxseed, bus.	135,018	306,114	133,210	146,500
Flour, bbls.	418,950	369,115	497,385	428,285

**FORT WILLIAM, ONT.**—Reported by E. A. Ursell, statistician of the board of grain commissioners:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	14,211,284	14,605,715	22,376,715	12,996,640
Corn, bus.	14,922	21,499	.....	1,569
Oats, bus.	640,940	3,028,821	720,885	694,406
Barley, bus.	808,590	2,001,034	757,525	1,381,661
Rye, bus.	498,806	387,987	329,073	134,748
Flaxseed, bus.	174,878	182,638	58,710	75,845
Mixed grain, bus.	79,690	244,139	113,493	23,497

**GALVESTON**—Reported by George E. Edwardson, chief inspector of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	.....	.....	4,932,066	3,906,023
Barley, bus.	.....	.....	.....	50,000
Kaffir corn, bus.	.....	.....	.....	122,142

**HOUSTON**—Reported by W. J. Peterson, chief grain inspector and weighmaster of the merchants' exchange:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	.....	.....	534,980	500,568
Kaffir corn, bus.	.....	.....	.....	25,114

**INDIANAPOLIS**—Reported by William H. Howard, secretary of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	2,494,000	1,782,000	401,000	471,000
Corn, bus.	1,977,000	1,975,000	1,993,500	1,525,000
Oats, bus.	1,192,000	1,000,000	694,000	788,000
Barley, bus.	6,000	75,000	.....	.....
Rye, bus.	9,000	12,000	1,500	.....

**KANSAS CITY**—Reported by W. R. Scott, secretary of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	33,054,740	37,564,560	16,583,700	16,600,090
Corn, bus.	1,702,500	1,560,000	1,693,500	2,523,000
Oats, bus.	200,000	326,000	182,000	124,000
Barley, bus.	225,600	552,000	160,000	275,200
Rye, bus.	16,500	12,000	4,500	9,000
Kaffir corn, bus.	68,200	206,800	88,000	383,000
Hay, tons	12,036	14,964	6,024	4,068
Flour, bbls.	43,875	61,100	731,725	671,175

**LOS ANGELES**—Reported by M. D. Thierbaud, secretary of the grain exchange:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, cars.	510	504	.....	.....
Corn, cars	232	289	.....	.....
Oats, cars	17	23	.....	.....
Barley, cars.	291	331	.....	.....
Bran, cars	97	127	.....	.....
Alfalfa, cars	14	11	.....	.....
Beans, cars	20	15	.....	.....
Cottonseed, cars	20	17	.....	.....
Milo, cars	5	26	.....	.....
Kaffir corn, cars	6	30	.....	.....
Hay, tons	145	591	.....	.....
Flour, bbls.	368	234	.....	.....

**MILWAUKEE**—Reported by H. A. Plumb, secretary of the chamber of commerce:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	1,545,360	2,497,840	665,293	1,381,005
Corn, bus.	639,360	1,519,960	380,875	978,817
Oats, bus.	711,210	730,860	249,000	600,907
Barley, bus.	779,700	620,080	128,650	259,740
Rye, bus.	9,800	19,670	80,400	13,140
Malt, bus.	55,100	167,500	369,800	456,560
Clover seed, lbs.	42,400	.....	.....	61,829
Flaxseed, bus.	.....	280	.....	.....
Hay, tons	12	304	.....	.....
Flour, bbls.	81,550	193,500	.....	2,450

**MINNEAPOLIS**—Reported by C. W. Maschke, statistician of the chamber of commerce:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	5,681,320	8,294,130	2,904,550	3,401,890
Corn, bus.	779,480	1,201,480	567,340	551,490
Oats, bus.	462,380	1,918,550	1,446,620	1,145,800
Barley, bus.	696,570	1,348,890	616,190	633,730
Rye, bus.	543,360	413,970	294,430	162,560
Flaxseed, bus.	162,000	180,200	64,960	162,290
Hay, tons	629	520	23	60
Flour, bbls.	14,524	21,737	891,972	902,323

**NEW ORLEANS**—Reported by S. P. Fears, chief grain inspector and weighmaster of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, cars	1,331	549	1,092,528	428,702
Corn, cars	18	49	13,761	131,887
Oats, cars	16	38	18,101	61,563
Barley, cars	6	37	.....	.....
Rye, cars	1	1	.....	21,428
Grain sorghum	.....	15	.....	.....

**RIVER BARGE RECEIPTS**

	1930	1929
Wheat, bus.	368,767	134,752
Corn, bus.	14,978	69,756

**NEW YORK CITY**—Reported by H. Heinzer, statistician of the produce exchange:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	5,231,500	3,704,000	5,742,000	4,051,000
Corn, bus.	1,560,000	147,000	.....	.....
Oats, bus.	121,000	242,000	.....	36,000
Barley, bus.	5,100	2,808,000	181,000	1,727,000
Rye, bus.	6,000	124,500	17,000	7,000
Timothy seed, lbs.	.....	.....	422	412
Hay, tons	159	.....	.....	.....
Flour, bbls.	1,078,848	.....	372,000	.....

**OMAHA**—Reported by F. P. Manchester, secretary of the grain exchange:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	14,296,000	11,292,800	2,896,600	2,744,000
Corn, bus.	1,233,400	1,482,600	1,348,200	1,779,400
Oats, bus.	256,000	594,000	348,000	448,000
Barley, bus.	49,600	310,400	70,400	217,600
Rye, bus.	64,400	112,000	36,400	35,000

**PEORIA**—Reported by John R. Lofgren, secretary of the board of trade:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	664,100	268,800	510,000	192,000
Corn, bus.	1,797,700	2,858,600	1,107,100	1,149,450
Oats, bus.	1,017,800	681,300	331,350	399,600
Barley, bus.	303,800	378,800	107,800	44,800
Rye, bus.	40,800	.....	.....	7,200
Mill feed, tons	21,330	29,440	30,550	45,695
Flour, bbls.	193,800	197,400	191,400	191,900

**PHILADELPHIA**—Reported by Lorenzo J. Riley, secretary of the commercial exchange:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	739,286	901,873	497,298	207,943
Corn, bus.	9,957	9,125	.....	.....
Oats, bus.	56,091	77,217	.....	.....
Barley, bus.	.....	.....	.....	22,245
Rye, bus.	1,873	2,309	.....	.....
Flour, bbls.	168,731	141,942	6,273	2,001

**PORTLAND, ORE.**—Reported by F. W. Clark, manager of the merchants' exchange:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, bus.	3,052,250	3,471,300	1,432,984	1,842,377
Corn, bus.	123,600	191,125	.....	161
Oats, bus.	70,300	108,300	7,616	3,985
Barley, bus.	26,250	12,800	.....	.....
Rye, bus.	2,900	1,450	.....	.....

**SAN FRANCISCO**—Reported by James J. Sullivan, chief inspector of the chamber of commerce:

	Receipts		Shipments	
	1930	1929	1930	1929
Wheat, tons.	8,120	11,977	.....	.....
Corn, tons	1,440	2,025	.....	.....
Oats, tons	640	681	.....	.....
Barley, tons.	30,579	66,037	.....	.....
Bran, tons	258	255	.....	.....
Beans, tons.	36,824	16,923	.....	.....
Hay, tons	6,477	6,051	.....	.....

**SUPERIOR**



# HAY, STRAW AND FEED

## FAVORABLE REPORT ON GROUND OAT GROATS

Ground oat groats have been found to be the most efficient of seven common feed additions to the standard "Big 10" protein supplemental mixture for hogs, developed at the state agricultural college at Ames, Iowa.

Dr. John M. Evvard, of the animal husbandry experimental station, made the discovery. His tests included the common and easily obtained soy bean, oatmeal, corn gluten meal, cocoanut oatmeal, wheat bran, standard wheat, middlings and cane molasses.

## FEED MOST VITAL TO COW AT CALVING TIME

One of the most satisfactory grain rations developed for cows before calving, contains 100 pounds of bran, 100 of ground oats, 100 of hominy or corn meal, plus 100 pounds of old process linseed meal—combined with four pounds each of special steamed bone meal, pulverized limestone, and salt.

Pre-calving weeks are periods of heavy feed consumption; eight quarts of such a mixture per cow are often required each day. A mixture of bran and oil meal, in a four-to-one ratio, is recommended as a substitute for the regular grain ration in the week before the calf is delivered.

## A TURNTABLE "AD" FOR FEED INGREDIENTS

For the elevator which has developed, or is developing, a retail trade in mixing and grinding feed, an especially attractive and inexpensive advertising display has been suggested.

Procure an old wagon wheel and mount it on the ground near the driveway, or inside the plant if there is room, so that the wheel will rotate horizontally about waist high. Saw out enough spokes to reduce the number of inter-spoke spaces to the number of feed ingredients to be displayed. Cut up a couple of old burlap bags to make shallow "hammocks" for all the inter-spoke spaces.

Fill each of the compartments with a certain ingredient. Place a bag of balanced feed, properly labeled on or over the hub of the wheel, and the show is on. Farmers waiting for their grain to be weighed can feel the various meals, note the odor, granulation, etc.

This simple device permits, of course, many elaborate variations. The spaces can be varied in size, for example, to correspond to the different percentages mixed in a certain feed. Wooden or cardboard arrows, or strings may connect each compartment with the finished product in the center. Ground grain, separated through various sizes of screens may be shown.

## WHEAT AS A FEED GRAIN

Wheat can be substituted for corn to advantage in feeding livestock when prices are as low as they are at present in some sections of the country, says the United States Department of Agriculture, in a statement issued late in July. "The average farm price of corn for the United States in June," the statement runs, "was about 79 cents per bushel. At this price for corn, wheat is worth about 85 cents for feeding to poultry and sheep, and about 89 cents for feeding to hogs and beef cattle. The average farm price of wheat the middle of July was about 80 cents per bushel.

"Based on digestible nutrients, wheat and corn are of practically equal value, pound for pound. Hence a bushel of wheat is worth more than a

bushel of corn in feeding value as a bushel of wheat weighs four pounds, or 7 per cent, more than a bushel of shelled corn. But corn and corn products alone make a better ration for cattle than wheat and wheat products alone. It is not necessary to grind corn as a hog feed, but wheat should be coarsely ground or crushed. Wheat, according to experiments made in Nebraska, has proved 5 per cent more efficient than corn for fatter steers when fed with Alfalfa hay, a little Prairie hay, straw bran, and linseed meal.

"Wheat does not give the best results when fed alone, but should be mixed with corn. Wheat may take the place of corn in rations for dairy cows. Wheat for horses should be ground or preferably rolled and must be mixed with other feeds because of its stickiness when chewed, and also because, if fed alone, it may cause digestive troubles."

On the practicability of using wheat as a hog feed, the department says about 5 per cent less grain is required in the case of wheat and that with corn at 70 cents a bushel and wheat at 79 cents, gains can be made with wheat and tankage at about 15 cents less per 100 pounds than with corn and tankage.

The value of wheat as a livestock feed compared with corn at various prices ranging from 50 cents to \$1 per bushel is shown in the following table:

Price of Corn	Value of wheat (not including grinding) as feed for—	
	Poultry and Sheep	Hogs and Beef Cattle
Cents	Cents	Cents
50	54	56
55	59	62
60	64	67
65	70	73
70	75	79
75	80	84
80	86	90
85	91	96
90	96	101
95	102	107
100	107	112

## ITALIAN ARMY TO BUY FEEDSTUFFS DIRECT FROM FARMER

For the double purpose of aiding Italian agriculture and economizing in its own expenditures, the Italian government has ordered that purchases of feedstuffs for army horses, mules, and other animals, be made direct from farmers' federations instead of through intermediaries, the Department of Commerce is informed in a report from John M. Kennedy, assistant trade commissioner in Milan. The authorities think that both farmers and state will benefit greatly by this elimination of middlemen.

## ILL EFFECTS FROM HALTING DAIRY COWS' GRAIN RATION

The importance of feeding grain to dairy cows while on pasture is shown by a comparison of two herds in the Shelby-Henry Association of the Kentucky Dairy Herd Improvement Association. Both herds, A and B, were well cared for during the winter, but feeding was stopped on Herd B when turned on pasture.

In May, Herd B averaged 810 pounds of milk, 36 pounds of butter fat; and in June, 578 pounds of milk, with 28 pounds of butter fat. Herd A, which was fed grain while on pasture, produced 824 pounds of milk, 35.5 pounds of butter fat in the month of May, and 747 pounds of milk with 35.9 pounds of butter fat in June.

These figures show that the same amount of butter fat was produced in June as in May by Herd A, while Herd B dropped off eight pounds per cow. In milk production, B averaged 232 pounds less for June than for May, while A dropped off

only 77 pounds in the same period. Besides the decrease in milk production during the summer months, the lack of feeding grain while on pasture decreased the production during the fall and winter months.

The dairy association suggests the following timely hints for the dairyman:

It is best to give all cows a six weeks' dry period and high-producing cows should be dry for two months before calving. Check up on the freshening dates of the cows and turn those dry which are due to freshen within six weeks or two months.

If heifers and dry cows are not fat, feed them because they will need to be fat to maintain production during the busy fall months.

This is a good time to mow the weeds and briars in pastures.

Dry pasture does not furnish much protein. It will be a good plan to increase the amount of high protein concentrate in the grain mixture.

## BETHKE FIGURES SHOW HEN'S HIGH LIME REQUIREMENTS

Animal protein and vegetable feeds are both excellent gain producers in poultry feeds, but unless minerals are included in the ration, growth will be retarded. Oyster shells, calcium carbonate, or some other lime source must be provided constantly in order to promote bone formation and maintenance.

In addition to bone building, shell making comes in for its demand of minerals. Often the number of eggs which hens may lay is radically reduced if sufficient lime material does not make its way from the dealer's warehouse to the feed pen.

According to Dr. R. M. Bethke, poultry feed specialist quoted in *Chickagrams*, live birds are nearly 4 per cent minerals. As poultry utilizes only one-fourth of its mineral intake, it is necessary to consume four times the mineral content of the eggs produced. Moreover, hens carry about three times as much lime in their blood as other animals do. Lime and phosphorus are 75 per cent of the hen's mineral requirements.

## MORE DATA ON FEED WHEAT

Wheat in use for feed is no phenomenon. In certain sections of this country, notably on the Pacific Coast, wheat is frequently employed exclusively for the whole grain part of the poultry ration. With corn relatively high priced, however, and wheat low in cost, use of the bread grain for feed is being rapidly extended even in corn belt areas.

For poultry feed, wheat ranks above corn in palatability. Chickens prefer the mild, rich flavor of wheat rations to the flavor of corn or any other grain. Wheat contains much the same quantity and quality of nutrients as corn with the exception of vitamin A which is supplied liberally by Yellow corn. Wheat supplemented with green feed or ground alfalfa balances the lack of Yellow corn.

An all-mash mixture may be composed of 40 per cent coarsely ground wheat, 20 per cent coarsely ground Yellow corn, 15 per cent ground oats, 7 per cent wheat bran, 10 per cent meat scraps, 2.5 per cent dried milk or buttermilk, 5 per cent alfalfa meal or leaf meal, and 1/2 of 1 per cent salt. Oyster shell or limestone grit may then be furnished to be fed separately.

When a greater percentage of wheat is used in the rotation, it should be recommended that the change be made gradually. This is especially important if birds are in heavy production; otherwise, a serious loss in egg production may result. Such changes in the make-up of rations can be safely



suggested about this time of year when pullets are on range or soon after they are transferred to the laying house, and when hens are going through the moult.

Any ordinary mash mixture may be fed along with wheat as the whole grain part of the ration. In short, the popularity of corn, rather than wheat, as a poultry feed ingredient, has developed because of the usual availability and reasonable cost of corn. When the ordinary price ratio of corn and wheat is reversed, feed formulas may also be reversed.

## FEED MARKET SHARPLY HIGHER—OFFERINGS LIGHT

Prices of commercial feedstuffs advanced sharply during the week ending August 13, influenced by the higher feed grains and low carrying capacity of pastures, which together stimulated demand materially. Offerings at most markets were light. At the close of the week, however, demand appeared weaker at the higher prices and slight declines were registered at some markets. Compared with a week ago bran prices advanced generally \$2.50 to \$4 a ton at eastern and central western markets, middlings or bran shorts \$2.50 to \$4.50, flour middlings or gray shorts \$1.50 to \$4, linseed meal \$1 to \$5, cottonseed meal 50 cents to \$3.75, gluten feeds \$2, white hominy \$4 to \$6.50, and Alfalfa meal \$1 to \$4 a ton. Western markets appeared relatively weaker.

The marked deterioration of feed grains and hay crops in July and the first week of August has been one of the principal factors in the market strength for commercial feeds. The tonnage of corn, oats, barley and grain sorghums based on the condition of the respective crops August 1, was forecast at 92,942,000 tons compared with a five-year average of 108,251,000 tons, a reduction of 14.1 per cent. The corn crop was placed at 2,212,000,000 bushels, the lowest for any year since 1901. Further deterioration in corn prospects has occurred since August 1. Oats were largely grown before the drought reached a serious stage and have been harvested under favorable conditions except for the shortness of straw in many sections. The available crop for this year, forecast August 1 at 1,316,369,000 bushels, will probably be considerably reduced by the unusual amount of summer feeding required in drought areas.

Commercial feedstuff markets developed a firmer tone at the close of July and during the first week in August, states the grain, hay and feed market news service of the United States Bureau of Agricultural Economics. The general situation was weak in the early part of July, became irregular during the latter part of the month and then developed decided strength with the material reduction in the carrying capacity of pastures and the upward trend in corn prices. The price upturn was confined more to the eastern and central western markets as the situation at western points was weak. Practically all commercial feedstuffs were quoted at the close of the first week in August higher than a month ago. Hominy feed, which was scarce and wanted, led the price advance. At the present prices, feedstuffs are much cheaper than a year ago.

Lighter exports during the past season have left a larger tonnage of commercial feedstuffs to be consumed in the United States. Exports of feedstuffs, exclusive of grain during June, amounted to \$676,000 compared with \$1,833,000 in June last year, a decline of over 63 per cent. Exports of hay, linseed meal, poultry and miscellaneous mixed feeds increased, but all other feed moved in a much smaller volume than a year ago. Exports during the fiscal year ended June 30 were about 30 per cent less than in the previous year, with the declining tendency more pronounced in the latter half of the year than in the first half. The principal loss in exports this past season has been in cottonseed cake and meal while exports of linseed meal have held up fairly well. Denmark took about 72 per cent of United States exports of cottonseed cake and meal. Netherlands, Belgium and the United Kingdom were the principal purchasers of linseed

Larger feed grain crops were in prospect July 1, but conditions have deteriorated considerably in the past month. The total 1930 acreage to corn, oats, and barley was increased and, based on conditions of these crops, July 1, production was much above that a year ago and also more than the 10-year average. The increase in corn acreage was due largely to a general shift from hay to corn in the northern states and from cotton to corn in much of the South. The oats acreage, which has been declining quite rapidly since 1925, was increased slightly over 4 per cent above a year ago as a result of the unusually favorable condition for spring seeding and the shift from barley to oats. The acreage of the latter grain decreased 2.3 per cent. These crops have deteriorated considerably since July 1. Rains towards the close of the month of July in the western corn belt, especially Kansas, and in some north central districts, notably Wisconsin, were helpful to the corn crop, but in general heat and drought materially reduced the corn crop prospects. Cooler weather, which was moving over the belt from the west at the close of the month, checked deterioration somewhat but improvement is not likely without general and generous rainfall soon.

## WHEAT FEED PRICES HIGHER

Wheat mill feed prices continued a downward trend to about the middle of July when demand improved materially. The then rapid deterioration of pastures, together with efforts by distributors to replenish their low market stocks, were the principal causes for the sudden change.

Prices of bran advanced \$2 to \$3 during the past month. Present prices are \$5 to \$7 per ton under a year ago. Heavy offal advanced about the same amount as bran but is quoted \$5 to \$10 under quotations at this time in 1929.

The cottonseed meal market was unsettled during July. The spot situation was firm being affected by the small stocks of cake and meal, while meal for future delivery was being influenced by cotton crop conditions. Prices declined about \$1 per ton during the month at Memphis but advanced that amount at Atlanta. Prices were sharply lower at Fort Worth. Prices at Memphis and Fort Worth are much under those a year ago while quotations at Atlanta are slightly above a year ago. The continued decrease in the capacity of southeastern pastures evidently was holding quotations in that area relatively firmer than in other parts of the cotton belt. The ginning of new cotton in southern Georgia and southern Alabama has not yet been of sufficient volume for carlot offerings of seed, but oil mills in that vicinity will probably commence operations about mid-August. At the close of the first week in August demand for spot meal at Atlanta and Memphis showed a good increase. Fear that feed crops had been materially damaged by drought, together with the recent advance in corn prices, was the principal strengthening factor in the market for meal for future delivery, but offerings for forward shipment were very light with sellers generally cautious until the outcome of the new crop is better known.

## PRODUCTION OF CONCENTRATES LIGHT

Production of cottonseed cake and meal during June aggregated roughly 41,000 tons compared with about 29,000 tons during June last year. Shipments, however, reflected the reduced demand and totaled only slightly over 56,000 tons compared with about 77,000 tons during June last year. Exports in recent months have been a very small fraction of those a year ago which has left relatively large amounts for domestic utilization. This has been an additional weakening market factor. Mill stocks of meal, July 1, totaled 84,127 tons compared with 142,737 tons a year ago. The smaller stocks, July 1, this year, were offset by the slightly larger mill stocks of cottonseed.

Linseed meal prices like those for cottonseed meal were unsettled in a market which was inactive and weak during the month. Prices advanced at Buffalo 50 cents per ton but declined at Minneapolis \$2.50 per ton. The nearness to the new crop movement of domestic flaxseed was the principal

factor in the relatively weaker Minneapolis market. Quotations, August 5, were \$12 to \$13 under a year ago, when supplies were very small.

Preliminary census figures on the crushing of flaxseed and production of linseed oil suggests that the outturn of linseed cake and meal during the quarter ending June 30, 1930, was about 138,000 tons compared with 185,000 tons produced in the corresponding quarter of 1929, 179,000 tons in the summer quarter of 1928 and 167,000 tons in the quarter ending June 30, 1927. Stocks of flaxseed at mills June 30 were unusually light.

Corn by-product feeds showed a strong tone during the month with demand active, especially for hominy feed. The sharp upward trend in corn prices was also a strengthening factor. Gluten feed was up \$1 at Chicago, but declined \$1 at Buffalo from a month ago. Hominy feed advanced \$6.50 to \$8.50 at the principal distributing markets over quotations at this time last month, but are still \$5 to \$8 under a year ago.

Alfalfa meal prices did not show the same relative strength as other feeds, advancing only 50 cents to \$2 per ton. The higher hay prices had a strengthening influence. However, commercial feedstuffs, of which alfalfa meal is sometimes an ingredient, was very small during most of July. Cheap wheat, oats, and barley are competing with commercial and by-product feeds and reducing market inquiries for mixed feed. Inquiries on the west coast for shipment to the Atlantic seaboard have been below normal during most of July. The June, 1930, production of alfalfa meal was nearly three times that for the previous month and about twice as large as for June last year.

## MUCH DEPENDS ON FALL FEED SUPPLY OF HEIFERS

When heifers are brought into the barn in the fall, there's extra business on tap for the feed grinder or dealer.

To make a good-sized cow, a heifer must be started out with a strong frame. And the development of a strong frame calls for palatable and nutritious feed mixtures in abundance. Clover and Alfalfa hay and dried beet pulp must be supplemented with two to four quarts of a grain mixture daily.

One feed formula for heifers which has given eminent success, consists (in addition to bone meal salt, etc.) of 100 pounds of ground oats, 100 pounds of corn meal or hominy, 100 pounds of wheat bran, plus 25 pounds of old process linseed oil meal.

Calves and heifers need about three pounds of mineral mixture to every 100 pounds of grain feed. Equal parts of finely ground limestone, fine cattle salt, and steamed bone meal may be used in the mineral mix.

## ALFALFA AND CLOVER BEST HAYS FOR CALF

The best of roughages is none too good for the growing calf. Where quality hays are not available from home-grown stocks, raisers of calves will find it to their advantage to buy good legume hays from dealers. Calves cannot be "roughed through" on low quality hays.

Alfalfa and Clover are the best hays for the calf, as they are rich in minerals and protein—just the combination that is needed. Alfalfa sometimes has a laxative effect. That can be avoided by introducing this roughage slowly into the calf ration. A little Timothy fed with the Alfalfa for the first few weeks will tend to counteract the laxative effect.

Clover hay, while not as nutritious as Alfalfa for calves, never is dangerous because of laxative qualities. Next to these two legume roughages, early cut mixed hay is best for calves.

ROD GRUNBERGER, Mexico, D. F., is installing a Randolph Drier for rice on a large plantation which will make it possible to handle the rice directly from the combine to the storage bin of the mill. This drier is operated by an indirect heat system so that the rice husks or hulls may be used as fuel.



## Poultry Pellets

### Basic Nutritional Facts and The Latest Idea in Poultry Feeding

By M. L. BARBEAU\*

THE poultry keeper who operates on a business basis realizes all too well that the feed consumed and the labor involved represent by far the largest items in his production costs. Breeding, of course, counts but success or failure in a poultry enterprise really depends more than anything else on the care that is given to the feeding of the flocks. It is because of its importance that so much investigational work has been done in poultry feeding and why methods of feeding in common vogue now differ so greatly from those of but a few years ago. Poultrymen are becoming more profit-minded every year. Rations are fed by weight, costs are carefully kept and feed cost is balanced against profits. Modern poultry feeds, adequate and essentially complete, are scientifically balanced, but their greatest appeal lies in their effectiveness and economic value.

What is required today is an increase of egg production. Perhaps if a hen could be made to understand what a bricklayer gets for laying a course of bricks she might be more ambitious in her own line of egg-laying. While we hear and read much about the 250 and 300 egg bird the fact remains that due primarily to improper breeding and feeding, the average hen in the United States produces little more than six dozen eggs annually, whereas the per capita consumption is 207 in this country and 337 in Canada. Rather than raise more fowls it is far more important that the average production per individual female be increased and that the expenses connected with her maintenance especially as regards feed and labor, be lowered. If each hen in the United States could be induced to lay but one additional dozen of eggs yearly, American farmers would receive an income \$120,000,000 in excess of what it is. Thus we have a partial solution of the agricultural relief problem.

The accumulated experience of successful poultrymen and of scientific investigators has made it quite plain that to make a success of poultry raising requires that practical experience be combined with scientific knowledge. Beyond his recognizing the need of providing a sufficient quantity of feed and avoiding such excess in eating and drinking as might upset the digestion of the fowl, the average man does not put forth any effort to learn the actual "why and the wherefor" of nutrition. Does he really understand that a feed must provide not only for the growth and maintenance of the bird's body, but for the production of eggs also? One must comprehend that quantity of food in itself will not guarantee a liberal egg crop even from healthy birds bred for high yield. The old stagers know it and the novice must learn that it is quality of feed that counts in the poultry game. Many instances can be recalled where without increasing the amount of food but simply by making relatively small changes or substitutions in the kinds of ingredients used or perhaps in the proportions in which they are blended in the mixture, there resulted an immediate increase in the number of eggs, an increase so material as to at once convert a persistent loss into a substantial profit.

Always must one remember that a sufficient number of eggs must first be secured to take care of operating expenses and overhead charges and that only by increasing the quantity beyond that point will a profit materialize. It might be well to remind our readers that only after a hen has laid 100 eggs per annum does she become self-sustaining; up to that time she has been a boarder.

In other words the revenue from 100 eggs represents the cost of her upkeep. So until the yield exceeds that number no profit is in sight. When she produces the 150 eggs a year the situation brightens somewhat for there results a profit of 50 per cent; 200 eggs means 100 per cent profit.

It has been mentioned that the outstanding item in the cost of production is the feed. It is therefore to the nutrition program that the poultryman after first having secured good stock, will devote his closest attention. Experience will soon teach him that the price of the feed is no indication of its cheapness. He will, after all is said and done, have found that the most economical ration, no matter what its price per 100 pounds may be, is that which yields the most eggs in return for each dollar of outlay. It is not to be expected that such a feed will cost the least per pound but it will most assuredly cost the least per pound of eggs gathered from the trap nests. While to a limited class of people, economy means spending just as little as possible for maintaining their flocks, thousands of successful poultry raisers have proved that the expenditure of more money so as to obtain result-producing, balanced rations is what really constitutes true economy. "To use

the dollar wisely is half the wisdom of our daily life" remarked a well-known authority when discussing the subject of poultry nutrition. The essential point about a feed is its "balance," that is, that proportions in which the different food elements are present in it. The substances from which feeds are compounded are considered in terms of proteins, carbohydrates, minerals, vitamins and fiber. Of these the proteins, the mineral matter and the vitamins are especially important since they sustain certain functions in the fowl's body which no other element can support. Particularly does this apply to rations for the growing chick and the laying hen. Food for these two classes of birds must be comparatively rich in proteins, carbohydrates, minerals, and vitamins and should be low in fiber, otherwise satisfactory results in growth or egg production cannot be expected. What is required, therefore, is a feed so accurately balanced that the fowl will eat just enough but cannot get too much of any of the elements mentioned. When a bird receives a ration consisting of rightly proportioned ingredients, she will not need as much feed as otherwise, hence her digestive tract does not become disturbed or strained because of over-eating. Hens frequently gorge themselves and thus upset their system, simply because their ration lacks certain essential substances which are not present in a low priced feed.

During his recent tour of England, the writer attended a poultry show where a British feed manufacturer had placed on exhibition two pens of Rhode Island Reds, both from the same hatching. The birds in pen No. 1 had been raised on an all-mash feed; those in pen No. 2 received identically the same ration excepting that one important ingredient (ground oat groats) had purposely been left out of the mixture. There was a remarkable difference between the two lots of pullets. Those in pen No. 1 were livelier, of better feather, larger frame and each weighed about two ounces heavier than their sisters in pen No. 2, which latter had had the item of ground oatmeal eliminated from their diet. The object of this unique exhibit was to demonstrate the superiority of a carefully balanced ration, also to show in a practical way the result of cheapening a feed by omitting even one of the high-priced ingredients. Judging from the unusual interest displayed by the crowd which constantly surrounded the two pens, the exhibitor drove the lesson home affectively.

The feed manufacturer when making up his formulae, takes advantage of what chemistry has taught him about the peculiar dietary properties of different natural foods and he is no less guided by carefully scrutinized feeding experiments of his own and of those conducted by state experiment stations. Never does he lose sight of the fact that there are at least 35 simple chemical substances essential to make a diet that will promote health. Truly it can be said that nutrition is a much more complex subject than it was formerly believed to be.

In the old days when only grains were fed to farm-raised chickens, they had to hustle around and pick up such proteins as their systems craved, namely, worms, bugs and flies, also mineral matter in the form of gravel, sand, bits of bone and shells. Thus, chiefly due to their own efforts, they procured a balanced diet, however crude in composition it might have been. As time went by we learned that grains in themselves and the by-products from most of them—bran for instance and others such as hulls, middlings and shorts, are ill balanced since they are deficient in the proteins and minerals which high egg production and growth demand. Therefore, such mill products are now supplemented by other material—vegetable and animal—which make good the chemical shortages in the grain foods, thus in the end the total ration consumed by the bird supplies just the right amount of each of the several food elements utilized.

While today one would not think of feeding his flock scratch grains exclusively, there are still many poultry raisers who adhere to the method known as combination feeding, i.e., they give their birds a mash and scratch feed also. While that idea may hold good in theory, it falls far short of the mark in actual practice. The chief objection to the scratch grains-and-mash system is that it is left to Biddy herself to unbalance her ration and she most assuredly does it. She throws out of gear the whole feeding regimen so carefully mapped out for her by first eating what she likes best—the grains—then after she has had her fill she goes to the self-feeder to partake of her dessert—the mash. Thus her menu is altogether different to that arranged for her. Still another drawback to the method referred to is that it adds to the labor involved in feeding the flocks even though the mash be fed dry. Then there is not only the excessive mash waste to contend with, but also the additional risk attached to the unhygienic custom of feeding grains in the litter. With a view to eliminating from poultry management as much expense as possible, internationally known nutrition experts experimented over a period of years with all breeds and ages of birds in order





to determine the status of all-mash feeds. It was found that when feeding an all-in-one soft feed exclusively, a great deal of labor was eliminated. There was the further advantage demonstrated that it made certain that the birds received a properly balanced ration, because a feed of that nature makes it almost impossible for a fowl to "pick and choose" as it invariably does when the grain-and-mash method is employed. Insofar as the economic factor is concerned, the all-mash plan rates highly in the opinion of operators of large poultry ranches who have put it into execution. If there is an objection to an all-mash feed it is the excessive feed loss—said by some to range from 30 per cent to 35 per cent—due to leaky containers, spilling out of hoppers, dropping out of the bird's bill, and other causes. Scratch grains have an advantage over a soft feed since they are more easily picked up, the shape of the mouth of the bird is evidence in itself that nature intended a bird having a pointed beak to take its food in granular rather than in powdered form. This advantage, though, disappears when the all-mash feed is mechanically pressed into hard, dry pellets which look so much like natural cereals that they are called "artificial grains" in Europe. These pellets, of course, are supplied in the proper sizes for different classes of birds, viz, very small granules for the chicks and a somewhat larger grade known as intermediate for growing stock; the  $\frac{1}{8}$  or  $\frac{3}{16}$ -inch pellets are suitable for adults of the three popular American breeds, whereas for the heavier class of fowls  $\frac{1}{4}$ -inch pellets are recommended.

It has been found that because the bulk or volume of the feed is so materially reduced by the enormous compressive force it is subjected to, chickens will eat a greater weight of pelleted feed than they can of ordinary loose mash. Every mouthful of pellets eaten by a bird is so precisely balanced and prepared in such an inviting way that complete digestion is facilitated, consequently the food is assimilated by the system to the best advantage.

Important it is to note that at no time during their process of manufacturing are these compressed feeds exposed to such a high degree of heat as would in any way affect the vitamin content or otherwise change the chemical composition of the ingredients. Another interesting fact is that not only all-mashes but any kind of standard or special dry mash starter, developer, laying and fattening, or even a molassed mixture—can be "pelleted". Present formulae need not be changed or disturbed in the least. As far as the price of pellets is concerned, the cost to the consumer does not appear to be higher than that of an equally good bulk mash.

The writer believes that this new method is destined to revolutionize the operation of poultry plants of this country just as it did in Europe, for certainly it simplifies processes in the feeding department and makes for more uniform results. By that is meant it eliminates the risks and uncertainties of the past. In the final analysis, the advantages of pelleted feeds over bulk rations will be reflected at the end of the year in a far more pleasing balance sheet. The cubing and pelleting business of Richard Sizer, Ltd., in America is owned by the S. Howes Company of Silver Creek, and further information in regard to pellets can be obtained from that firm.

### HAY MARKET STRONGER

Hay markets strengthened considerably during the week ending August 8. Offerings were generally light and demand good from all classes of trade, according to the weekly hay market review of the United States Bureau of Agricultural Economics. A continuation of the extremely hot dry weather intensified the droughty conditions over central and eastern United States. A few local areas in the north central portion of the country were benefited by showers, but several sections not heretofore seriously affected are becoming very dry. Streams have become extremely low practically everywhere and the scarcity of water for livestock is a serious problem in many localities. Pastures

east of the Rockies continued to deteriorate and considerable feeding of stock was reported in some sections.

Timothy markets gained considerable strength with light offerings and advancing feed grain and feedstuffs prices. The greatest increase in hay prices was reported in eastern and southern markets where demand was particularly good and offerings light. Supplies were light and demand good at Boston. Quotations remain about unchanged although premiums were being asked for the better grades. Increased offerings at New York were readily absorbed at prices which were \$1 to \$2 per ton above those for the previous week. Premiums of \$3 per ton were paid for old crop hay, but all grades and types were in excellent demand. Prices at New York were slightly above those at Brooklyn. Extremely light receipts were largely responsible for the advance in prices at Philadelphia and Pittsburgh. Southern markets also strengthened considerably with light offerings, although demand was somewhat restricted by poor financial conditions and substitution of corn, fodder cut early because of drought.

Although western Timothy and Clover markets displayed considerable strength, price advances were not as great as in eastern and southern markets. Timothy and Clover advanced \$1 to \$2 per ton at Cincinnati due to light offerings and higher feed grain and millfeeds prices. Demand, although good, was almost entirely local. Orders from the South were very light. Offerings continued hardly sufficient to satisfy requirements at Chicago where an excellent outlet was reported for hay that would grade U. S. No. 3 or better with No. 2 in best request. "Soo" hay continued to bring the usual premiums over "state" hay and while quotations were shifted to a new crop basis, old crop hay continued to sell at a premium of \$2 to \$3 over the new. The Minneapolis-St. Paul market continued dull despite the active demand for feedstuffs. Quotations on hay remained unchanged largely as result of limited offerings. Shippers and local retailers readily absorbed the light offerings and Kansas City and quotations advanced slightly. The St. Louis market advanced \$2 per ton stimulated by advancing grain and feed prices as well as light offerings of hay.

Alfalfa markets generally strengthened somewhat due to higher prices for feed grains and to some improvement in demand caused by a continuation of drought and extreme heat over a large part of the country. An excellent shipping inquiry was reported at Chicago with offerings extremely light. Prices at Kansas City advanced \$1 to \$2 per ton despite a substantial increase in offerings which totaled nearly three times those for the previous week. All classes of buyers were in the market. Demand was especially good for leafy hay. Considerable unsound hay was included in the week's run. Hay of that quality was slow sale largely because of increased offerings. The third cutting is completed in Oklahoma and is now being harvested in Kansas where the quality is reported good but yield unusually light. Los Angeles markets remained unchanged with receipts mostly within the lower grades which were in excess of demand. The light offerings of leafy hay of the upper grades were in good demand at firm prices. Holding tendency on part of growers was increased somewhat due to reports of drought in the central and eastern parts of the United States. This was particularly noticeable at San Francisco where offerings were very light and prices advanced about \$2 per ton over the previous week.

Prairie markets generally advanced along with grains and other classes of hay. Receipts at Chicago were unusually light and in good demand but the moderate offerings at Minneapolis were slightly above market requirements although prices remained about steady. A broader demand developed at Kansas City and the increased receipts were readily absorbed and prices advanced 50 cents per ton. All classes of buyers were in the market although shipping demand was rather light. Recent arrivals at that market show noticeable loss in color due to dry weather in producing areas.

### N. Y. HAY PRICES RALLY AFTER DROP

By C. K. TRAFTON

During the early part of the period under review, prices for hay in the New York market lost about \$1. Later, arrivals became somewhat heavier and available supplies more liberal, making it rather difficult to move as buyers still seemed to be well supplied and were showing very little interest. About the middle of the month a steadier tone began to develop and eventually resulted in a full recovery of the early loss.

Possibly this change was based at the start on the bullish Government report for July, indicating a yield of only 1.43 tons per acre of tame hay and a total crop of only 85,400,000 tons, compared with 101,715,000 tons last year, 93,031,000 tons in 1928, and 106,001,000 tons in 1927. Subsequently, this was augmented by growing fears regarding the effects of the unusually prolonged period of extreme heat and drought over all the country, an almost entire ruin of fodder crops and pasturage being reported in many sections. Arrivals and invoices became much lighter and as supplies were being steadily reduced, sellers displayed a much firmer tone. Temporarily buyers refused to follow the advance, but later began to look somewhat eagerly for good hay and found the supply very short. In fact, toward the end of July there was said to be virtually no sound old hay left.

The smaller arrivals were made up almost entirely of low grades; some of it almost worthless. This was especially true of some of the new state hay which arrived by river barges, it being very hot and badly damaged. Some of this hay was almost given away in order to move it. Conservative and experienced distributors are inclined to look for a further reduction in the hay crop promise as a result of the continued unfavorable conditions during July and their belief is that there will not be much hay for sale. As a consequence, they look for continued firmness in the New York market, although they admit that this will be largely a reflection of stronger markets in the West where crops of all kinds are particularly hard hit.

In short, it is their opinion that new crop supplies will be proportionately liberal in this state and other eastern sections where markets will probably be influenced only indirectly by the widespread crop losses; i.e., by the shutting off of shipments from certain contributing sections because of better prices offered in districts where conditions regarding livestock feeding are especially serious.

Early in August, prices rose to top levels as damage to pastures by drought and the scarcity and high cost of all other feeds led to further improvement in demand. Arrivals continued light and No. 1 was given a nominal value of \$29 to \$30, none being available.

### RANDOM NOTES FROM FEED TEST RECORDS

The following observations are the result of experiments conducted by the Agricultural Experiment Station of the University of Kentucky in Lexington:

1. Meat scrap in the laying mash in any proportion from 5 to 20 per cent is profitable for the production of eggs.
2. A mash containing 20 per cent meat scrap will yield more eggs and more profit than one containing only 5, 10, or 15 per cent meat scrap.
3. Although increasing the proportion of meat scrap in the mash increases the feed cost per hen, it also increases the egg yield, thereby decreasing the cost per dozen eggs.
4. Both dried buttermilk and condensed buttermilk are efficient commercial sources of animal protein.
5. Wheat is a very desirable addition to the grain mixture if not too high in price.
6. Oats of low quality (less than 30 pounds a bushel) increase the fibre content of a ration and add little to its feed value.
7. Maximum egg yields and greatest returns over feed cost were obtained (one year's data)



when a mash containing 10 per cent meat scrap was fed in addition to skim milk for a grain ration supplement.

### HAZARD IN HAY GRINDING

An insurance bulletin, calling attention to the fire hazard created in elevator plants where hay grinding is carried on, says:

"Recent fires in plants grinding hay and similar materials indicate that this is an exceedingly dangerous practice which is to be countenanced only after due precautions have been taken.

"Such grinding should not be done in a main building. The ground material should not be discharged into an elevator boot or a conveyor, but should be sacked directly by the operator who should be continuously on duty at the mill. Even then there is the possibility and probability that a sack of ground hay containing a hot piece of metal will be set aside in the plant and eventually burn it."

### NEW ENGLANDERS OFFER TO SHIP OUT HAY

Shippers in New Hampshire are ready to send hay into the drought-stricken central and southern agricultural areas if, in the opinion of President Hoover, such action is considered necessary. This is the announcement made a few days ago by L. A. Carlisle, commissioner of agriculture of New Hampshire.

"With practically ideal growing conditions this summer," he said, "farmers of the state have a bumper crop and in some sections it has been so plentiful that fields have been left uncut and the product permitted to go to rot because of the large surplus.

"Hay could be shipped from New Hampshire to the affected areas if President Hoover took steps to provide a special low freight rate as suggested by Louis J. Taber, master of the national grange, who has proposed that steps be taken to move hay and feed into cattle regions now deprived of natural pasture by the record-breaking heat and lack of rain."

### FEEDS ADVANCE SHARPLY IN NEW YORK

By C. K. TRAFTON

The action of the New York feed market during the past month was largely along the lines suggested in our previous review. In short, as the month progressed it became increasingly evident that a heavy short interest had been built up during the previous month when many jobbers were encouraged to sell short by the declining movement in grain markets and the persistent pressure of feeds from South America and various European countries. Early in the period the same conditions prevailed and the tone continued easy with buyers still holding off in anticipation of further declines. Therefore, the movement was almost continuously upward.

The prolonged hot and dry weather all over the West, resulting in serious losses in crops of corn, oats and hay, as well as very poor pasture conditions, and the resultant sharp advance in prices for all grains, combined to stimulate a much more active demand from actual consumers and they met keen competition from jobbers who were heavily short. In the meantime, domestic producers, and especially the large Buffalo mills, were still very independent, selling sparingly on each successive advance and then withdrawing offers almost entirely until a still higher basis was established. Very bullish developments regarding foreign feeds accelerated the advance.

The arrivals of middlings were smaller—about 14,000 bags, compared with about 17,400 for the preceding month—but there was a material increase in the imports of bran which totalled about 130,000 bags, compared with about 70,500 bags. However, the condition of many of the deliveries proved to be extremely poor, resulting in many rejections and arbitrations, penalties of \$6 to \$8 per ton being assessed in some cases, while on one

especially bad lot a rebate of \$15 was demanded. As a result foreign bran is now held at \$26.50, f.o.b., compared with previous sales at as low as \$21.50, while middlings have advanced to \$27. Likewise, domestic bran has advanced \$6 to \$7, middlings \$5 to \$6.50, and red dog \$4 to \$4.50. The latter was often in particularly good demand and frequently almost impossible to buy even at the advance.

The sensational advance in corn prices was reflected in White hominy, selling a month ago at \$31.75 and now quoted nominally at \$40 to \$41 with practically nothing offered. Yellow hominy was entirely withdrawn and is unquotable. Linseed oil meal (32 per cent) advanced from \$44.80, c.i.f. N. Y. rate points, to \$48.50. Cottonseed oil meal sold down to \$39 on the decline, but because of the poorer outlook for cotton the new crop feed is now quoted at \$40.75 for fall shipment. Light imported beet pulp did not share in the general upturn. Compared with the basis of \$33.50, f.o.b. ruling a month ago, it is now offered at \$32 for August-October arrival.

### NEW FEED BRANDS

"CHAMPION CUBES" for stock feed and solidified stock feed. Champion Milling & Grain Company, Clinton, Iowa. Filed May 9, 1930. Serial No. 300,168. Published July 1, 1930. Claims use since December, 1929.

"REDSTARCO" for dried grains used for cattle feed. Red Star Yeast & Products Company, doing

Serial No. 302,071. Published July 15, 1930. Claims use since about February 19, 1930.

"BIG DIAMOND" for horse and mule feeds, poultry feeds, hog feeds, sheep feeds, dog feeds, pigeon feeds, rabbit feeds, dairy-cattle feeds, corn meal. Meridian Grain & Elevator Company, Meridian, Miss. Filed November 4, 1929. Serial No. 291,995. Published July 22, 1930. Claims use since February 22, 1922.

"BLACK HEART" for stock and poultry feeds of all kinds. John Morrell & Co., Ottumwa, Iowa. Filed December 18, 1929. Serial No. 293,848. Published July 22, 1930. Claims use since November 27, 1929.

"HILLTOP POULTRY FEEDS" for poultry feeds. Moore & Moore, doing business as Hilltop Poultry Farm, Anoka, Minn. Filed May 2, 1930. Serial No. 299,851. Published July 22, 1930. Claims use since 1929.

"SUN-RAY" for dairy, poultry, horse, pig-hog, and stock feeds. Kasco Mills, Inc., Waverly, N. Y. Filed May 2, 1930. Serial No. 299,845. Published July 29, 1930. Claims use since 1922.

"MAR-O-DINE" for beef scrap, fish meal, dried sea kelp, kel-mar, and in mixtures consisting respectively of beef scrap and sea kelp, fish meal and sea kelp, kel-mar and sea kelp. Consolidated By-Product Company, Philadelphia, Pa. Filed May 23, 1930. Serial No. 301,095. Published July 29, 1930. Claims use since May 7, 1929.

"DO-MOR" for poultry and animal feeds, namely, laying mash, scratch feed, chick scratch feed, pig and hog feed, horse feed, and dairy feed. Always-A-Head Mills, Inc., East St. Louis, Ill. Filed June 16, 1930. Serial No. 302,453. Published July 29, 1930. Claims use since March, 1929.

"THREE CHICKS" for starting mash for chicks. International Sugar Feed Company, Minneapolis,



business as National Distilling Company, Milwaukee, Wis. Filed May 16, 1930. Serial No. 300,665. Published July 1, 1930. Claims use since April 26, 1930.

"TESKE'S BANG" for stock and poultry feeds. Karl P. Teske, doing business as Teske Milling Company, Davenport, Iowa. Filed May 16, 1930. Serial No. 300,690. Published July 1, 1930. Claims use since October 13, 1927.

"YANKEE" for dried buttermilk for poultry and livestock feed. S. T. Edwards & Co., Inc., Chicago, Ill. Filed April 27, 1929. Serial No. 283,101. Published July 8, 1930. Claims use since November 3, 1927.

"DOMINO," "PELLETS" for poultry, rabbit, dog, dairy, and livestock feeds, Nowak Milling Corporation, Hammond, Ind. Filed May 13, 1930. Serial No. 300,432. Published July 8, 1930. Claims use since December 20, 1929.

"SUREGOBBLE" for poultry food. Sperry Flour Company, San Francisco, Calif. Filed May 31, 1930. Serial No. 302,070. Published July 15, 1930. Claims use since about February 19, 1930.

"RAYON" for pig meal, molasses pig meal, laying mash, chick mash, steel-cut chick scratch, poultry fattener, growing mash, calf meal, cow feed. Parkston Milling Company, Inc., Parkston, S. D. Filed May 26, 1930. Serial No. 301,289. Published July 8, 1930. Claims use since April 1, 1930.

"POINTED CIRCLE" for starting mash, growing mash, laying mash, and fattening mash for poultry. International Sugar Feed Company, Minneapolis, Minn. Filed May 31, 1930. Serial No. 301,935. Published July 15, 1930. Claims use since July 8, 1927.

"SUREPOULT" for poultry food. Sperry Flour Company, San Francisco, Calif. Filed May 31, 1930. Serial No. 302,069. Published July 15, 1930. Claims use since February 19, 1930.

"SURETURK" for poultry food. Sperry Flour Company, San Francisco, Calif. Filed May 31, 1930.

Minn. Filed May 31, 1930. Serial No. 301,931. Claims use since December 26, 1929.

"ONE CHICK" for starting mash for chicks and chick feed. International Sugar Feed Company, Minneapolis, Minn. Filed May 31, 1930. Serial No. 301,932. Claims use since May 6, 1929.

"SETTING HEN" for laying mash for hens. International Sugar Feed Company, Minneapolis, Minn. Filed May 31, 1930. Serial No. 301,933. Claims use since January 9, 1930.

"CIRCLES IN OBLONG" for starting mash, growing, laying mash, and fattening mash for poultry. International Sugar Feed Company, Minneapolis, Minn. Filed May 31, 1930. Serial No. 301,934. Published July 15, 1930. Claims use since December 26, 1929.

"INTERNATIONAL" for starting mash, growing mash, laying mash, and fattening mash for poultry. International Sugar Feed Company, Minneapolis, Minn. Filed May 31, 1930. Serial No. 301,930. Claims use since March 21, 1921.

### Trademarks Registered

272,420. Poultry and stock foods containing a vitamin preparation obtained from cod-liver oil. National Oil Products Company, Harrison, N. J. Filed February 26, 1930. Serial No. 296,542. Published April 22, 1930. Registered July 8, 1930.

272,454. Horse, cattle, chicken, and hog feeds. Shenandoah Milling Company, Inc., Shenandoah, Va. Filed March 11, 1930. Serial No. 297,154. Published April 22, 1930. Registered July 8, 1930.

273,201. Stock Food. American Milling Company, Peoria, Ill. Filed March 5, 1930. Serial No. 296,848. Published May 6, 1930. Registered July 22, 1930.

### Labels

37,620. Title: Feedright. For stock and poultry feeds. Feedright Milling Company, Inc., Augusta, Ga. Published May 9, 1930. Registered July 1, 1930.



## GRAIN MARKET REVIEW

By G. A. COLLIER

Domestic grain markets turned decidedly firmer around the first of August and prices advanced sharply from the low point in July. This advance has been caused principally by the rapid deterioration of the corn crop and a marked reduction in prospects for other feed grains, Spring wheat and flax as a result of the serious drought which still prevails over the eastern half of the United States. At this writing (August 12), wheat is selling about five cents per bushel higher than a month ago, corn is up 18 to 20 cents and oats and barley about five cents per bushel. Rye has advanced with wheat and flax has strengthened under the influence of the less favorable crop prospects.

The crop and market situation for wheat in the Northern Hemisphere has not changed greatly during the past month and present prospects are that the season's supplies will not differ materially from a year ago. Supplies of wheat in the United States for the current season are well above those of last year notwithstanding the reduction in the Spring wheat crop. Favorable weather for harvesting the domestic Winter wheat crop has resulted in better outturns than were expected earlier in the season and the 1930 crop was estimated August 1 at 597,392,000 bushels, an increase of approximately 40,000,000 bushels over the July 1 estimate. Of this about 357,000,000 bushels is Hard Red Winter and 195,000,000 bushels Soft Red Winter. The outturn of White wheats of both winter and spring seedings is now indicated at 81,000,000 bushels. The Spring wheat crop, however, deteriorated during July as a result of the dry, hot weather and a crop of only 900,000 bushels over the July 1 estimate. Of this, amount about 48,000,000 bushels is Durum. This makes a total United States crop of 821,000,000 bushels compared with 806,000,000 bushels produced in 1929.

Stocks of old wheat in the United States at the first of July were about 30,000,000 bushels larger than a year ago. Farm stocks were about 1,500,000 bushels larger and totaled 46,834,000 bushels. County mill and elevator stocks totaled 54,031,000 and merchant mill stocks in mills and in mill elevators attached to mills 46,670,000 bushels. Market stocks totaled 109,325,000 bushels, or about 19,000,000 bushels more than July 1, 1929. This would give on the basis of the August 1 estimate a total domestic supply for the current season of 1,077,470,000 bushels, or about 47,300,000 bushels more than last season.

No official estimate is yet available for the Canadian Spring wheat crop, but trade reports suggest an outturn 50,000,000 to 75,000,000 bushels larger than the relatively small 1929 harvest.

Little information is yet available as to supplies of wheat in Europe, but stocks of old wheat are probably around 50,000,000 bushels smaller than a year ago, according to such trade and official data as are now available. The 1930 production, not including Russia, will probably be somewhat below that of last season because of smaller crops in France and Italy. Estimates available for 10 countries, however, are around 22,000,000 bushels above the outturn in these countries last year. Reports from Russia indicate that the harvest is above that of 1929 and that the quality of the grain is good, although of higher moisture content.

The North African crop, which competes more directly with United States Durum wheat, is about 20 per cent below the 1929 harvest and is placed at 57,672,000 bushels. The Indian crop, which is the first to be harvested in the Northern Hemisphere, is about 70,000,000 bushels larger than the 1929 harvest, according to the preliminary estimate, which places the crop at 386,848,000 bushels.

Conditions in the Southern Hemisphere indicate a larger harvest than in 1929, but the crop has four or five months to go before harvest and conditions during this period will determine the outcome of the crop. A record acreage is reported seeded in Australia and weather conditions have been favorable for the growth of the crop, both in that coun-

try and in Argentina. Supplies of old crop wheat in the Northern Hemisphere are below a year ago.

Marketings of the new domestic Hard Winter wheat crop have been fairly heavy, but below those of a year ago, with a noticeable slackening in shipments during the past two weeks and since a firmer tone has developed in the market. Mill demand has been of good volume, partly as a result of the unusually high quality of the grain, and export inquiry has been more active than during the corresponding period last season. Exports of wheat alone during July totaled approximately 13,000,000 bushels compared with about 9,500,000 bushels shipped out during July, 1929. Market stocks, however, have increased sharply and on August 9, 173,087,000 bushels were reported in store in the markets reporting to the United States Department of Agriculture compared with 157,033,000 bushels in store a year ago.

Protein continues unusually high, inspections for July at Kansas City showing an average protein content of 12.5 per cent compared with an average of 12 per cent in July, 1929. Offerings of new Spring wheat also increased materially during the first half of August, but arrivals at Minneapolis and Duluth were smaller than for the corresponding period last year. The new Spring wheat is also relatively high in protein. Two thousand seven hundred and forty-five cars tested at Minneapolis during the week ending August 7 averaged 13.94 per cent and ranged from 20.4 to 9.1 per cent; 120 samples tested at Fargo, N. D., showed an average protein content of 14.9; 87 samples of Spring wheat at Bozeman, Mont., averaged 14.6; and the same number of samples at Grand Forks, N. D., averaged 14.4 per cent protein. The test weight, however, is lower than last year and mills are giving relatively more attention to weight than to protein content at some points.

Cash prices of all classes of wheat have advanced with futures influenced principally by the strength in corn and other feed grains. At the close of the market August 8, No. 1 Dark Northern Spring wheat with 13 per cent protein was quoted at Minneapolis at 97¼ cents to 1.00½ per bushel. No. 1 Amber Durum was quoted at 88 to 99 cents per bushel at Minneapolis and Duluth. No. 2 Hard Winter wheat with 13 per cent protein was quoted at Kansas City at 89 to 90 cents and No. 2 Hard Winter at Denver at 57 to 68½ cents. No. 2 Soft Red Winter was selling at St. Louis at 95 cents per bushel and at Chicago at 96¼ to 98½ cents. No. 1 Soft White wheat was quoted at Portland at 94 cents, No. 1 Western Red and Hard Winter at 91 cents, bagged, and 14 per cent protein No. 1 Northern Spring from Montana, in bulk, at \$1.07 per bushel. No. 1 Hard White wheat was quoted at San Francisco at 99 cents to \$1.02 and No. 1 Soft White at 97¼ to 99 cents per bushel.

Foreign wheat markets have also strengthened, influenced in part by the less favorable prospects for Spring wheat in the Northern Hemisphere. At the close of the market August 8, No. 1 Northern Manitoba was quoted at Winnipeg at \$1.00¾ per bushel. No. 2 Manitoba for August shipment was quoted in Liverpool at \$1.17, Argentine Rosafe 62½ pound wheat, afloat, at \$1.11, White Karachi wheat from India at \$1.12½, white wheats from the Pacific Coast for August shipment at \$1.09½ and United States No. 2 Hard Winter for August shipment at \$1.11 per bushel. Good milling quality native wheat was quoted in Paris at \$1.69¼, at Milan, Italy, at \$1.79¾ and at Hamburg, Germany at \$1.78¼ per bushel.

## RYE MAKES SHARP ADVANCE

The rye market has developed independent strength during the past month and prices at this writing are 10 to 12 cents per bushel higher than a year ago. Less favorable prospects for the new crop, together with some improvement in demand, has been principally responsible for the advance. Dry weather caused further deterioration in the crop during July and the August 1 estimate placed this season's harvest at 46,700,000 bushels. Market stocks are still relatively large and on August 9 totaled 12,424,000 bushels compared with slightly

less than 7,000,000 bushels a year ago. The quality of the early arrivals has been rather poor because of light weight. Mills have been active buyers of good milling samples at current quotations.

Rye production in Europe for the 10 countries for which estimates have been received totaled 480,761,000 bushels this year compared with 464,839,000 bushels a year ago.

The oats market has strengthened, influenced principally by the sharp advances in corn prices. From present indications, supplies of oats for the current season will be slightly larger than last year. The drought has reduced earlier prospects, but a crop of 1,316,000,000 bushels was indicated by the condition at the first of August. Prices have advanced about five cents per bushel and at this writing No. 3 white oats are quoted in Chicago at 40 to 41 cents, in Minneapolis at 36¼ to 38 cents, and in Kansas City at 42 to 43 cents per bushel.

The barley market also turned decidedly firmer during the past month under an increased demand as a result of drought and higher prices for corn.

Prices have advanced about five cents during the past month and on August 11 best malting barley was quoted at Minneapolis at 53 to 55 cents per bushel and feed barley at 44 to 48 cents. The new barley in the north central states is rather unsatisfactory for malting purposes because of a large percentage of hard, flinty kernels. The quality of the crop in the Southwest, however, is unusually good and grades mostly Nos. 1 and 2. No. 2 barley was quoted at Kansas City, August 8, at 66 cents per bushel and No. 3 at 65 cents per bushel. No. 3 barley was selling at Denver at 43 to 48 cents per bushel.

An unusually sharp advance has taken place in the corn market during the past month, principally as a result of further serious damage to the crop from hot, dry weather which has prevailed throughout most of the principal producing areas. The crop deteriorated more than 21 per cent between July 1 and August 1 as a result of the continued severe drought in the Ohio and lower Mississippi Valleys. The condition at the first of August indicated a crop of 2,212,000,000 bushels, the lowest for any year since 1901 when the crop was 1,614,000,000 bushels. A further loss of possibly 100,000,000 bushels has occurred since August 1, according to reports to the United States Department of Agriculture. The indicated yield of corn is the lowest on record (since 1866) for each of the six states of Mississippi, Louisiana, Arkansas, Kentucky, Virginia, and West Virginia. These states, however, produce only about 8 per cent of the total crop. The more important corn producing sections of the north central states had a reasonably good prospect for somewhere near an average crop of corn August 1, although high temperatures since the first of August have undoubtedly caused further deterioration. The indicated yield per acre of corn was about equal to, or above, the 10-year average yield in Wisconsin, Colorado, Idaho, Utah, Arizona, California, South Carolina, New Jersey, New York, and the New England States.

No official estimate is available of the amount of old corn yet remaining, but trade estimates suggest that farm stocks are about 50,000,000 bushels smaller than a year ago. Market stocks total about 3,000,000 bushels. Marketings have fallen off sharply with the deterioration in the new crop while demand from industries and feeders continued active. Prices have advanced around 20 cents per bushel from the low point reached early in July, and on August 11 No. 2 mixed corn was quoted at Chicago at 99½ cents to \$1.00½ per bushel, No. 2 Yellow at \$1 to \$1.01, and at Kansas City at 96½ to 98 cents per bushel.

The present outlook for feed grains in Europe is for a smaller crop than was harvested last year. Acreage has been reduced and production so far reported is less than in 1929. The barley crop as reported by 10 countries is about 4 per cent below last year while oats production also shows a decided decrease. The corn crop is expected to be below last year's large harvest, but estimates of production are not available in important areas.



## TRADE NOTES

During the month of July, 1930, the Zeleny System was installed by the Zeleny Thermometer Company, 542 South Dearborn Street, Chicago, Ill., in 35 bins for the Wabash Railroad Company, North Kansas City, Mo., and 19 bins for the Ralston Purina Company at Kansas City, Mo.

The O. W. Randolph Company, of Toledo, Ohio, has been running overtime since January 1, 1930. Driers have been shipped all over the states since then, as well as to Europe, South America, Haiti and Nicaragua. Randolph Driers are installed in so many territories in both the Eastern and Western Hemispheres that today "the sun never goes down on the Randolph," they are in so many parts of the world.

There are still elevator operators who are laboring under the mistaken idea that the new Eureka Buhler Drive, which operates without eccentrics, is only applicable on Eureka or Invincible Separators. This is a mistake, the vibrationless drive can be applied to any make of sifter, and with very little trouble. Write the S. Howes Company, Inc., Silver Creek, N. Y., for full particulars as to your machine.

### KEEPING GRAIN SWEET

If your grain were in such condition that, to keep it from heating you would be forced to turn it every 24 hours, it would be pretty expensive grain

with air conditioned to a high vapor pressure so that the moisture content of dry grain can be increased gradually by 1 per cent in 30 days.

The equipment consists of an air compressor with motor, a converter of air pressure transformer, a complete system of air conveying piping, with such other gauges, thermostats, valves, etc., as are necessary, and connections for use in introducing fumigant gas into each bin.

Apparently nothing has been overlooked in the system which will contribute to the perfect conditioning of grain. The accompanying diagram gives a general idea of the installation and further details may be obtained from the company headquarters at Lawrenceburg, Ind., or from Edgar S. Miller, sales manager, 609 Manufacturers Exchange Building, Kansas City, Mo.

### MR. SIZER TO VISIT AMERICA

There having been such a remarkably lively interest displayed in the new Sizer system of feed cubing, S. Howes Company, Silver Creek, N. Y., as joint owners of the Sizer patents, invited the inventor, A. W. Sizer, president of Richard Sizer, Ltd., Hull, England, to come over here to meet our prominent feed manufacturers. The invitation was accepted and cable advices indicate that Mr. Sizer will leave Southampton on the S. S. Mauretania August 2, arriving in New York a week later.

Much importance is attached to Mr. Sizer's American tour, which is made in the interests of this company's feed compressing machinery. The Howes company at the request of prominent feed manufacturers, is now arranging an itinerary

cattle feeders and poultry raisers have become so wildly enthused over cubed feeds that manufacturers who are producing them cannot keep pace with their orders."

M. L. Barbeau, secretary of the Howes company, informs us that Mr. Sizer expects to call upon as many of the owners of the 45 Cubers sold here as time will permit. He adds, "Those of your readers who wish for specific information on cubed feeds are invited to at once get in touch with the Silver Creek, N. Y., headquarters with a view to arranging an appointment for Mr. Sizer."

### NEW SPOUT SAMPLER

W. C. Wheeler, of the Federal Grain Supervision office at St. Louis, Mo., has patented a sampling device developed as an attachment for grain spouts.

It fastens on the lower end of a loading spout and gathers its sample by swinging a small pelican (or pocket) across the stream at regular intervals. On each swing the pelican picks up grain along the entire cross section of the stream. During the interval in which it stands still, the portion of grain caught is allowed to pass through a flexible tube to a bag which holds the aggregate sample. This bag hangs from a supporting bar underneath the machine in a way that makes it easily replaced or emptied at any time.

A novel feature of this machine is the fact that it utilizes the gravity force of the grain stream for power of operation. A corrugated spool-shaped roller presses slightly into the grain on the underneath side of the stream, and the force against the faces of the corrugations cause the roller to revolve at approximately motor speed. This furnishes sufficient power since the speed is reduced by worm gears on a ratio of 4,000 to 1, so that a strong spring arrangement swings the pelican across the stream about every 75 seconds. The pelican used is narrower than the hand type, but the regular and frequent movement of it collects sufficient amount necessary for a workable sample.

The apparatus weighs about 50 pounds, and when in operation neither interferes with the manipulation of the spout nor checks the flow of the grain. It has been operated at Baltimore, Md., but mostly at the Missouri Pacific elevator in St. Louis. Numerous tests have shown only slight variations in operation and the analysis of each sample has been very gratifying. Up to now the work has been confined to streams that run less than 15,000 bushels per hour, but it is believed that practical use of it can be made wherever a straight loading spout is used.

### GRAIN SHIPS SOLD BY U. S. TO RUSSIANS

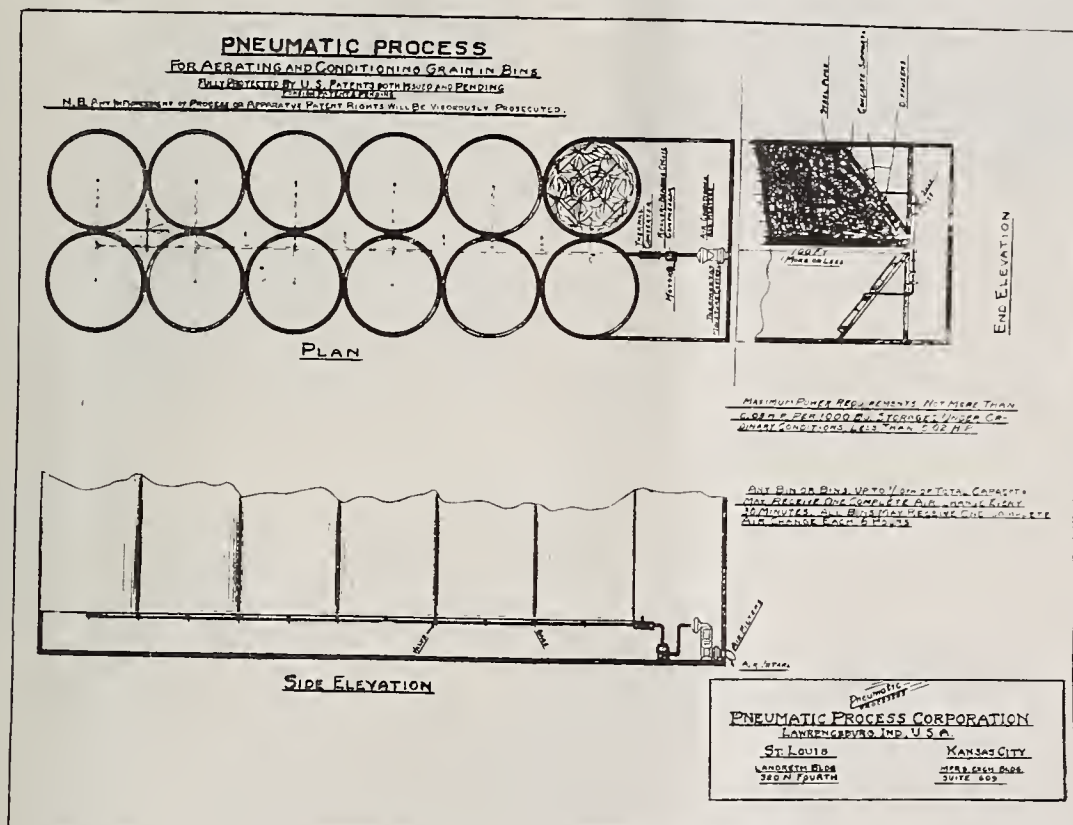
Twenty-three vessels, some of them large grain ships, built for the American merchant during the World War, have been sold by the United States Merchant Fleet Corporation for operation to and from the grain ports of Soviet Russia. The vessels netted \$1,273,000, and were transferred in three separate lots to J. S. Ohsol, of New York, official of the Amtong Trading Company.

Under the sales agreements it is specified that the smaller of the ships may not be operated to or from the United States for five years, and that the larger cargo ships shall be similarly restricted for a 10-year period.

Grain was carried in the holds of some of the ships as their prows were pointed eastward across the Atlantic.

EXPORTS from the port of Dairen, China, to the United States for the three months ended June 30, included 2,200,000 pounds of soy bean cake valued at \$37,500 and 12,600,000 pounds of soy bean cake meal valued at \$213,000, according to information received from the American consul at Dairen.

MANUEL GARZA GUERRA, of Saltillo, Mexico, is remodeling its mill and equipping it with modern machinery, a Randolph Drier being included.



to keep. But even such grain can be kept as cool and sweet as it would with daily turning if it is stored in bins equipped with Pneumatic Grain Conditioning Process, made by the Pneumatic Process Corporation, Lawrenceburg, Ind.

This pneumatic equipment will change all the air in the bin every six hours. Any of the storage bins, up to 10 per cent of the total capacity equipped, may have a complete change of air every 30 minutes, so it is not necessary to segregate doubtful grain; it can be taken care of wherever you put it.

In a dry year like the present, such a convenience is only of academic importance, but in wet years what a saving in spoilage and in elevator space there would be and the beauty of the system is that the temperature of the grain can be controlled without the loss of an appreciable amount of moisture in grain containing not more than 14 per cent. This is of great importance during the sweat of combine harvested grain, or in grain that is weedy or dirty. And, further, the process can be operated

covering the chief feed milling centers of this country and in so advising this journal requests that mention be made that Mr. Sizer will be glad to discuss with all those who are interested, cubing machinery and manufacturing methods and the advantages of cubed feeds in particular.

Writes the company, "As a pioneer in the designing of machinery for compressing mixed feeds and having devoted the greater part of his life to the production of such equipment, Mr. Sizer is unquestionably the world's leading authority in that field. His visit to the United States therefore offers manufacturers of mixed feeds an opportunity to meet the inventor and to secure from him first-hand information about the cubing system."

The Howes company goes on to say that "the change in the feeding methods of this country—the transition from bulk feeds to cubed feeds—will come about in a remarkably short time, that is if we are to judge by what is actually going on in the western and southwestern states. In those sections



# Reclaiming Cobs . . . for Feed Manufacture

## Years of Experiment Develop Process for Maizo Mills Whereby Waste Part of Corn Can Be Milled Into High Grade Feed

By C. C. TRUAX, Owner of Maizo Mills

OUR experience in the conservation of waste farm products began prior to March 31, 1924, and involved the grinding of cobs into meal. It was fortunate for us that we knew how to reduce the moisture and to cure and dehydrate corn cobs. This prevented our equipment from gumming up and the meal from becoming a sticky mass when the cobs were green and contained an excessive moisture content. We also knew what kind of equipment to use to reduce corn cobs with-

is also adapted for use in the production of crate and car fattener poultry feeds which makes possible maximum growth, development and weight at minimum cost. This crate and car fattener poultry feed (our formula) which provides proper percentages of animal and vegetable protein and fat assures shippers desired bleach, bloom, and finish and maintains until time of consumption maximumly matured and milk-fed poultry.

Such crate and car fattener poultry feed will ab-

30 per cent absorbent and 70 per cent molasses. It reduces the moisture and ash content of molasses and makes possible a final product greatly desired for use in conjunction with other by-product feeds for complete mixtures. The palatability this molasses feed supplement gives to any ration entitles it to a place in every sweet feed mixing program.

Being of a granular and meal form it is conveniently mixed with other ingredients and will not create a sticky, cakey or lumpy condition so apparent and objectionable in other carriers when subjected to change in temperature and climatic condition, thereby permitting the economical production of a molasses feed supplement greatly desired by millers and feed mixers in the production of mixed feeds.

If desired, the molasses feed supplement may be combined with cottonseed oil meal for use in the production of a dairy feed supplement or with digester tankage for use in the production of a hog feed supplement. This molasses feed supplement is also an excellent product for use in high-quality horse and mule feeds.

Some of our products are made from the cellular or semi-cellular structure of our raw material and are used in such work or processes that require a definite or a maximum amount of absorption with little or no abrasive action. Other products are made from the abrasive or semi-abrasive structure of our raw material with little or no absorption and are used for such work or process that require little or no absorption with a definite or a maximum amount of abrasion.

A number of our products are used in distillation or fermentation work and in distillation and fermentation processes from the economical production of numerous other products. Other of our products are used for woodflour, sawdust, bran, middlings, red dog, low-grade flour, and other substitutes. Four of our products are used to absorb and remove hot palm oil from tin andterne plate, which are either



LEFT TO RIGHT: M. F. CLENDENEN, MANAGER; HELEN ROWE, SECRETARY; JOHN W. MADDOX, PRODUCTION MANAGER; C. C. TRUAX, OWNER; AND H. R. HARTWELL, SECRETARY AND AUDITOR

out balling the products, as when cobs are crushed and then ground on hammer or attrition mills, it produces cob meal containing small ground ball material. This was the type of cob meal condemned in most states for use in the production of mixed feeds and was also found unfit for industrial use.

It took several years of research, experiment and plant tests, necessitating the employment of numerous chemists, researchers, and engineers, and the re-construction and re-flowing of our mills many times, trying out numerous types and kinds of equipment and the origination, designing, development, and the building of several kinds of special machinery and equipment, all at a tremendous cost and expense, to create and perfect our processes of production, originate our various products, contact our outlets and to develop our business.

Our process of production and treatment of cobs are patented. These patents cover apparatus, special machinery and equipment, system and formula for the production of many types and kinds of products, materials, meals, flours, and compounds made from corn cobs and involve dehydration of cobs to desired moisture content, separation and elimination of objectionable material and foreign matter, disintegration, segregation and treatment of component parts and new methods of reduction which make possible the manufacture of products with desired organic chemical constituents, size and texture for specific use and for use in the production of numerous other products.

One of our most important developments is a corn cob absorbent product made from certain component parts of dehydrated and disintegrated corn cobs which is very high in digestible carbohydrates and of short fiber and cellular structure, thereby permitting desired distribution of molasses, oils, buttermilk (dilute semi-solid), and other liquids and is especially adapted for use in the production of various kinds of supplements for use in the production of mixed feeds. This absorbent product

sorb and carry  $2\frac{1}{2}$  times its weight, or 5,000 pounds of buttermilk to each ton of feed and, if desired, may be mixed with such buttermilk a day or two prior to feeding, thereby creating a pre-digested food especially desired in producing at the lowest possible cost and in the shortest period of time the



MAIZO MILLS LOCATED IN CIRCLEVILLE, OHIO

finest quality of milk-fed poultry. Such pre-digested food assures battery feeders and carload shippers of poultry maximum results.

The corn cob absorbent product permits the production of a molasses feed supplement containing

sold outright or handled on a "rented, not sold," basis. The used products returned to their place of origination or reshipped and used or sold for feed mixing purposes.

Our processes of production and treatment of

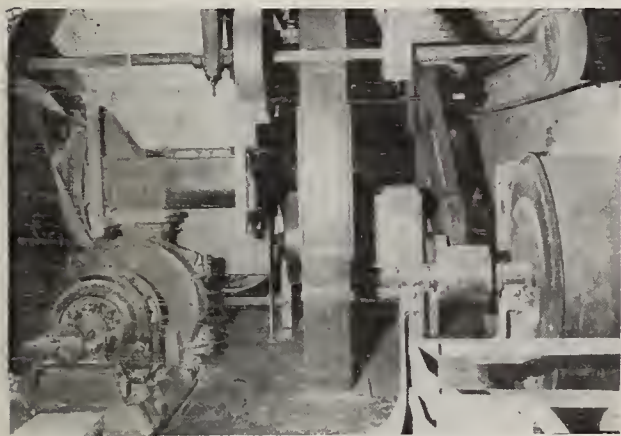


raw material permits the removal of all foreign matter from corn cobs and the re-claiming and marketing as No. 3 and No. 4 corn all grains of corn contained therein and thereby the production of two additional products known as "ribbon" and "excelsior type" corn husks which are used in various industrial cleaning operations.

We have made possible a great variety of needed products, materials, meals, flours, and compounds made from the raw material out of what was farmland and waste material. Our products, numbering over 100, due to their various forms, sizes, textures, consistencies and definite organic chemical constituents have great commercial value for specific use.

Our products are made in modern, special-equipped and well-located plants in good corn belts having a large amount of raw material available locally and good shipping facilities. All procedure from the procuring of raw material and every manufacturing process from raw material to finished products, including the sale and distribution of the final product (other than products used by licensees or other manufacturers in the production of their products), is under our constant supervision and direction.

The distinguishing characteristics of our products lie in their consistency, uniformity, design, size, and texture or in their definite organic chemical constituents. In every case, these products and our processes of production have been designed and developed by competent men of authority in their respective activities who have a full knowl-



VIEW OF DISINTEGRATING MILL

edge and appreciation of actual industrial requirements and factory conditions.

The major attack on this problem lies in the field of greater efficiency in materials, because materials used account for fully 50 per cent of the cost of production. Specially designed materials, for specific use with proper constituents, in no way interfere with, but on the other hand greatly improve the quality and reduces the cost of the final product.

The cash outlay for additional and special equipment to be used in connection with that already, or usually, installed in corn mills and feed plants is small, and if desired, some of our production units can be made to operate in conjunction with their regular production.

The sale price of our products are such that it makes possible a nice profit per ton on tonnage produced. The average 1,000-barrel corn mill can be converted at small expense into two or three ton per hour production units for the production of three of our final products having a tremendous sales outlet. Other size corn mills with various capacities ranging from 200 to 10,000 barrels can likewise be converted at small expense into various sizes, kinds, and numbers of production units for the manufacture of our many types and kinds of products with equal opportunities.

All mills and plants which are now under consideration or will be considered in the future for the production of our products must have the above mentioned facilities and qualifications and be subject to the supervision and direction hereinbefore specified. Some of the most important features concerning a desirable location is the grain by-product rate to important industrial centers, nor-

mal production of corn within a radius of 50 miles, improved highways for trucking of cobs and the cost of power and power facilities.

To protect milling-in-transit privileges on shipments of our products to tin and terne plate plants for use in cleaning and finishing tin and terne plate and the re-shipment of such used products (known after use as feed mixers meals and feed mixers materials) to feed mixers so that such milling-in-transit privileges will apply from the tin or terne plate plants using such products, it is necessary and most advantageous to acquire each mill's tonnage requirements of corn cobs desired in the pro-

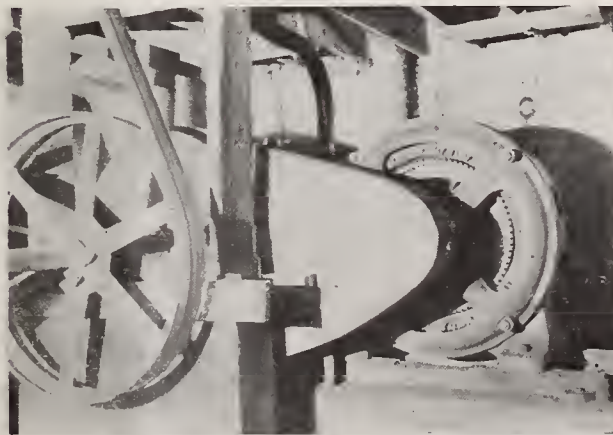


SECTION OF GRINDING FLOOR

duction of our tin and terne plate materials and meals by truck delivery within a radius of 30 miles of each mill producing such products.

If in our judgment, a sizable tonnage of our products can be produced at a low cost and effect a profitable operation for the mill or plant owners and be mutually beneficial to all concerned. We are confident that the millers and feed manufacturers in the corn belts invited to participate will be happy to become one of our licensed sources of supply. We think we have accomplished a sizable undertaking in that our processes of production, cost, and sale price of products, advantages of use, and the demand for our products have been established and are known quantities which permit good returns on capital invested and service rendered by the mills producing such products, desired economies and improved quality of the final products produced by the use of such products, proper compensation and remuneration for funds invested and effort put forth in the origination and development of such industry and last, but not least, the huge amount of money that will be paid each year to the farmers of this country for corn cobs heretofore valueless.

The production and sale of our products from



LINK BELT DRIVE TO MAIN LINE SHAFT

corn cobs alone, without the conservation of other waste material produced on the farm, should under proper supervision and direction within the next five years net the farmers hundreds of millions of dollars per annum.

Our mill, known as Maizo Mills, located at Circleville, Ohio, is especially well located in a good corn belt with ample corn cobs available locally for truck and rail delivery. It has been thoroughly modernized and has good shipping facilities with low freight rates to important eastern and northern industrial centers.

It being our experimental, laboratory, try-out and

instruction mill, it is especially well equipped with interchangeable and special machinery and equipment capable of interchanging into a number of production units and while not having any exceedingly large tonnage of any particular product, it is capable of producing many kind and types of products, materials, meals, flours, and compounds from corn cobs. It is equipped with both steam and electric power so as to make cost record runs of products and secure first-hand information as to which is the most adaptable power or at what certain products will cost to produce in other plants under similar conditions.

This mill has made it possible to secure, if desired for other mills, numerous outlets for an immense tonnage of the products so produced and tried out by these users and outlets. It has been possible by the operation of this mill to secure complete data concerning costs of products and to know what each of our production units will produce per hour and to establish most advantageous and tremendous reductions in freight rates.

### HEN WITH WINDOW GIVES INSIDE FACTS ON FEEDS

A mechanical hen, seven feet high and able to speak the feed dealer's language fluently, was one of the exhibits set up by the United States Department of Agriculture at the World Poultry Congress in London, England, last month.

The artificial hen was provided with a full set of man-made internal organs, visible to all, and offering an explanation of how feed is taken in, ground up, digested, and distributed prior to egg production. It had a full-vision gullet, extra large crop fitted with window, copper-lined stomach, flexible rubber intestines, gizzard (a feed grinder) with variable speed control, and a heart represented by a two-valve pump. Eggs were turned on a lathe situated at a strategic point.

A phonograph record, substituted for the regular hen's larynx told the story of feed consumption from the hen's standpoint. The future itinerary of this talking hen will include many state fairs in the United States this fall.

### BEAN FIRM EXPANDS

Negotiations through which the Farr Produce Company of Greeley, Colo., will acquire additional bean buying facilities in the states of Wyoming, Idaho, and Montana were announced recently by Grant Wilson, manager of the company.

The names of the companies which the Greeley firm proposed to buy were not made public and a definite statement as to the pending deal would not be available until sometime in July, Wilson said. The plants which may be acquired are said to be located in Billings, Mont., Basin, Wyo., and Filer and Twin Falls, Idaho.

The Farr company also contemplates purchase of additional facilities in Colorado where it has been a large operator for years.

### WISCONSIN HAY TESTS

Farmers in 12 Wisconsin counties are conducting field tests on their farms to discover just how much lime, phosphate and potash are required to produce heavy growths of Alfalfa, according to A. R. Whitson, in charge of the soils department of the state agricultural college of the University of Wisconsin. The farmers and the county agents are staging these experiments under the direction of the university authorities.

### LEGUMES TESTED

Farmers in various sections are reporting extraordinary success with Sweet Clover as a desirable method of supplying summer pasture. At Little Chute, Louis Peters was able to pasture 15 Holsteins on 10 acres of Sweet Clover with excellent results. In the town of Kaukauna Clifford M. Lambie pastured 20 Guernseys on only 12 acres of Sweet Clover.

In many sections of Wisconsin the Sweet Clover method of pasturing is practically unknown, but with the steady and consistent work of promotion done by the Wisconsin College of Agriculture, the crop is making headway steadily.



# ASSOCIATIONS

## PLAN TO INCLUDE MINNESOTA IN CENTRAL FEED GROUP

It was definitely decided at a meeting of the executive committee of the Central Retail Feed Association in Milwaukee last month to expand the territory covered in the association membership to include Minnesota. There is at present no organization of feed interests in that state.

Dealers of Minnesota and other parties interested are to be notified shortly as to the time and place of a meeting at which the matter will be taken up in more detail.

## WASHINGTON DEALERS HAVE OWN IDEAS OF FARM RELIEF

"Real farm relief—eat more eggs and dairy products."

This slogan has been adopted by the Feed Dealers Association of Washington which is now attempting to popularize the message. It is already in use by members throughout the state on stationery, invoices, and in advertising. Largest dissemination of the slogan has been by rubber "slogan stamps," one of which was sent to every feed dealer.

Further plans of the public relations committee, responsible for coining the slogan, call for a carefully planned program to cover the fall and winter for capitalizing the close relationship of dealer and customer.

"Conditions for the dairy industry look better," said A. G. Nelson, chairman of the committee. "Realization of a definite community of interest between farmers and merchants is the first step in co-operation between them and that step has been taken. An industry such as our feed industry is sound only so long as its customers are making money. We believe the constructive program of increasing the use of dairy products is the way to farm prosperity and are committed to use all our energies to further a campaign to that end."

## GRAIN ASSOCIATIONS REPORT ON CROP CONDITIONS

From the Alleghenies to the Rockies, and from the Great Lakes to the Gulf, the present drought has proved very disastrous to agricultural products, especially corn, hay, and cotton. The Kansas Grain Dealers Association addressed letters to the secretaries of other grain dealers' associations requesting them to advise condition of growing corn and the per cent of the wheat marketed. The replies are as follows:

W. W. Cummings, secretary of the Ohio Grain, Mill and Feed Dealers Association: "The corn crop in the southern part of the state will not average 25 per cent. In the northern part, the early corn has been hurt very little, but late corn won't do better than 50 per cent. I estimate about 50 per cent of the wheat crop has been shipped to market, some of it in store. The balance will be fed or held for higher prices."

Fred K. Sale, secretary of the Indiana Grain Dealers Association: "The southern half of the state, I feel, is absolutely gone. The north quarter of the state has had more rain, but at that it is showing some damage. There has been at least 25 to 35 per cent damage already done, considering the state as a whole. I would say that about 50 per cent of the wheat on an average in the state has been marketed, possibly more. In some sections the farmers are holding back quite a large proportion of their wheat and are going to feed it."

D. O. Milligan, secretary of the Western Grain Dealers Association, Iowa: "If we should have a good rain in Iowa this week, I would say that the general damage throughout the state would be not to exceed 15 to 20 per cent. In other places it has been damaged as high as 50 per cent. The oats are being held on the farm closer this year than at any time in Iowa's history. The low price of 26 to 28 cents in the country is discouraging the movement. We have cars of new oats on the market grading No. 1, perfect, which so far as I know is a new record in that class of grain. Wheat has moved rather freely in comparison with other grains, as well as the old corn, but on account of the damage to pastures there will undoubtedly be a very heavy consumption of grain this year."

W. E. Culbertson, secretary of the Illinois Grain Dealers Association: "I would say that a conserva-

tive estimate is that Illinois has been damaged 25 per cent up to the present time. If we do not get rains it will be greater of course, but we have never had a failure over the entire state and I do not believe we will this time. I would judge that 90 per cent of the wheat has already been marketed. The farmers in Illinois have no storage bins and naturally have to move it after threshing."

H. B. Dorsey, secretary of the Texas Grain Dealers Association: "The entire corn crop of the state is damaged at least 50 per cent. There might be some little corn in the Panhandle, though I don't think so. I doubt if 25 per cent of the wheat crop has been marketed as the farmers have unloaded their grain on the local elevator people."

J. N. Campbell, secretary of the Nebraska Grain Dealers Association: "The corn crop in Nebraska is not seriously hurt yet. It was all 10 days or two weeks late and only the earliest of it caught in the tasselling state has been damaged and not much of that. Rains are helping the crop. I hardly know what estimate to put on amount of wheat marketed, probably one-fourth of the crop of 70,000,000 bushels. The farmers are holding all they can afford to store and feeding considerable stock."

T. B. King, president of the Nebraska Grain Dealers Association, in the central part of Nebraska: "Along the Platte Valley the corn has stood up remarkably well with apparently only a small per cent of damage. East and southeast of Schuyler clear to the Missouri River, it is much drier and the damage increases. North central and south-eastern Nebraska corn has been our best bet, but they are beginning to claim damage up there."

C. F. Prouty, secretary of the Oklahoma Grain Dealers Association: "Bottom corn has stood up wonderfully well under extreme high temperatures, yet it is beginning to show the effect of intense heat and lack of moisture. The upland corn is hurt badly, some of which has already been gathered for feed and silos."

Reports received at the Kansas association office from various parts of the state are as follows: South-central corn crop in this territory will be so small that it will hardly be worth mentioning. Southwest total failure. George E. Hogle, secretary of the Hutchinson Board of Trade, states: "The dry weather has seriously affected the growing corn. I made a trip to Dodge through Pratt and Kingman, also a trip up the river to Great Bend, and the corn all looks very sick."

These estimates of conditions were as of August 1st, and as the drought and heat still continues there is no doubt but what conditions are much worse than when these reports were made.

## CONVENTION CALENDAR

August 20:—Michigan Grain, Feed and Hay Dealers Association meets in Hotel Hayes, Jackson, Mich.

August 21-22:—New York State Hay and Grain Dealers Association meets in Onondaga Hotel, Syracuse, N. Y.

September 1-2:—Fraternity of Terminal Elevator Superintendents of North America meets in Chicago, Ill.

September 10-11:—Michigan Bean Jobbers Association meets in the Hotel Pantlind, Grand Rapids, Mich.

October 12:—Terminal Grain Weighmasters National Association meets in Hotel Sherman, Chicago, Ill.

October 13-15:—Grain and Feed Dealers National Association meets in Hotel Sherman, Chicago, Ill.

October 14:—Chief Grain Inspectors National Association meets in Hotel Sherman, Chicago, Ill.

## EGLY NEW HEAD OF NATIONAL HAY ASSOCIATION

C. G. Egly, of Fort Wayne, Ind., was elected president of the National Hay Association at the annual convention held last month in Columbus, Ohio. He succeeds F. L. Alexander, of Marion, Ohio, who will serve on the board of directors this year. Other directors are Rudolph Raabe, of Fort Jennings, Ohio; George S. Bridge, of Chicago; C. A.

Miller, of Adrian, Mich.; and Lloyd M. Faris, of Kansas City, Mo.

The new first vice-president is H. A. Bascom, of Boston, and the second vice-president is H. M. Scott, of Toronto. Fred K. Sale continues as secretary.

Among the speakers on the convention program were Dr. J. C. Willard, of the department of farm crops at Ohio State University, who spoke on "Cutting and Curing Forage Crops for Higher Quality Hay"; A. R. Shannon, National Hay Association inspector, whose subject was "Uniform Grading and Loading of Hay"; D. Clifford Jones, secretary of the New York State Hay and Grain Dealers Association; Rudolph Raabe, W. F. Biles, and O. M. Earl.

## OHIO GRAIN MEN TO HOLD ANNUAL OUTING

The Ohio Grain, Mill and Feed Dealers Association will hold its annual frolic at Kingsville, Ont., Thursday, August 28. The steamer *Greyhound* has been chartered for this cruise and will leave the foot of Madison Avenue, Toledo, about 8:30 a. m. and return the same evening.

Secretary Cummings has made arrangements for excellent entertainment throughout the trip. A large tent will be set up on the shores of Lake Erie for the convenience of picnic parties and those desiring other refreshments.

About 200 attended last year and it is expected that even more will take advantage of the trip this year.

## Association Briefs

THE Western Grain Dealers Association held district meetings in four Iowa towns last month—Sac City, Fort Dodge, Algona, and Grundy Center.

THE Farmers Grain Dealers Association of Iowa, with headquarters at Fort Dodge, has added a traffic and claim division to its service department which will be under the direction of A. V. Stuart, former Minneapolis attorney and expert in railroad claims and transportation problems.

IN LESS than two months (you can check this with your calendar) the thirty-fourth annual meeting of the Grain and Feed Dealers National Association will be in progress. According to tentative plans, this year's program will be unusually attractive. Announcement of the details for a convention exhibition of products made by allied industries will be made soon.

GRAIN men of southwestern North Dakota attended a conference in Fargo, July 26, under the auspices of the Farmers Grain Dealers Association of North Dakota, to consider questions expected to arise in connection with the handling of this year's crop. "New things are developing fast and furious in the grain situation," said P. A. Lee, Grand Forks, secretary of the association. "The grain trade is confronted with a whirlwind such as perhaps never before has been experienced."

KENTON D. KEILHOLTZ, of Southworth & Co., and president of the Toledo Produce Exchange, is scheduled to speak at the twenty-ninth annual convention of the Michigan Grain, Feed and Hay Dealers Association to be held in the Hotel Hayes, Jackson, Mich., on August 20. L. E. Marshall has invited all those interested, whether or not they are members of the association, to attend.

BERT T. DOW, president of the Grain and Feed Dealers National Association, is retiring from activity participation in the affairs of the Davenport Elevator Company, of which he has served as president.

ELEVATOR operators meeting recently at Clarkfield, Minn., formed the Central West Grain Mens Association. The constitutions and by-laws are to be adopted at a meeting in Minneapolis this month. Officers chosen thus far are Iver Wollum, president, and L. V. Dahl, secretary.

## FRENCH CONSIDER "FARM RELIEF" BILL

A bill is now under consideration by the French government which provides for the extension of credit for the purchase of farm machinery and equipment, according to a report from George W. Berkalew, assistant trade commissioner in Paris. Another bill contemplates provisions for the authorization of a loan by the "Caisse Nationale" of 250,000,000 francs (\$9,800,000) at the extremely low interest rate of two per cent. The funds will be devoted to the improvement of wheat and other agricultural products.

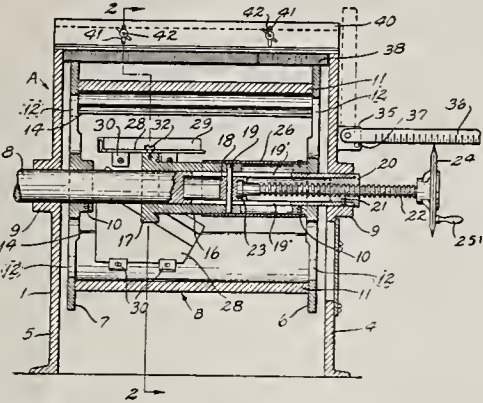


## GRAIN TRADE PATENTS

Bearing Date of May 27, 1930

Percentage Feeder. George H. Hebebrand, Florissant, Mo. Filed February 4, 1928. No. 1,760,407. See cut.

Claim: A feeding machine of the class described comprising a casing affording an inlet and an outlet for material, a feeding member rotatably mounted in the casing between said inlet and outlet, and plurality of



pockets formed in the periphery of said feeding member, each of said pockets being formed by a plurality of movable elements adjustable to vary the volumetric capacity of the pocket.

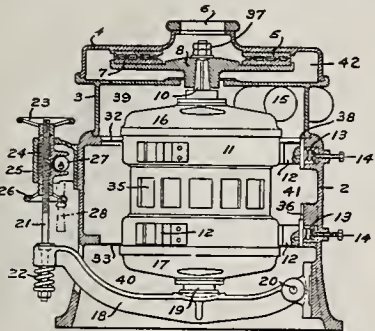
Bearing Date of June 3, 1930

Method of Synthesizing Vitamins. August J. Pacini, Chicago, Ill., assignor to Charles M. Richter, Chicago, Ill. Filed August 20, 1928. No. 1,762,105.

Claim: The method of synthesizing vitamin A comprising treating a suitable substance by suitable radiation to effect synthesis of said vitamin A, the substance being positioned in a region of ambient, inert gas, said radiation being continued only long enough to produce said vitamin A and being discontinued before vitamin D is substantially produced.

Disintegrating Mill. Albert M. Marsh, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a corporation of Delaware. Filed March 12, 1928. No. 1,762,122. See cut.

Claim: In combination, a fixed attrition plate, a movable attrition plate co-operating with the underside of said fixed plate, means for feeding material between said plates, a motor having a rotor direct connected to said

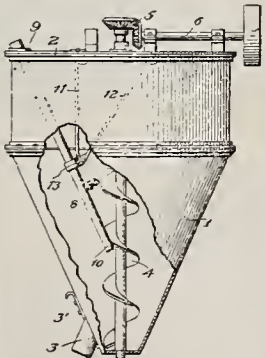


movable plate for rotating the same about a vertical axis, and means for simultaneously moving said movable plate and the entire motor structure relative to said fixed plate.

Bearing Date of June 10, 1930

Feeder Mixer. Ingval Edland, Monitor, Ore. Filed December 5, 1929. No. 1,762,654. See cut.

Claim: An improvement in a dry feed mixer of the type embodying a conical mixing chamber and a central vertical screw conveyor in said chamber for agitating, elevating and dropping the feed; said improvement comprising an inclined liquid-introduction pipe within said chamber, the upper end of said pipe passing through the



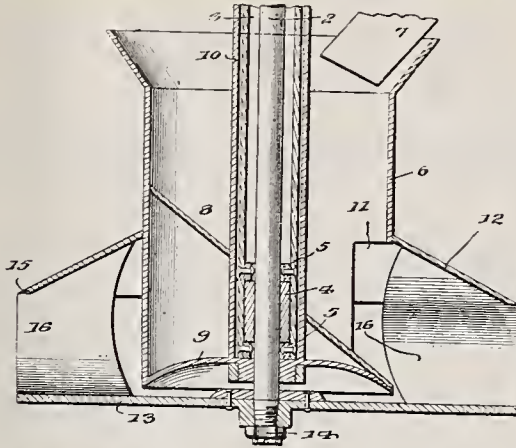
top of said chamber at a point near the peripheral edge thereof, the lower end of said pipe being disposed within the small lower end portion of the chamber intermediate the ends of and near the periphery of said screw conveyor, and means fixedly mounting said pipe in said chamber.

Centrifugal Grain Distributor. Judson C. Howland, Galveston, Texas. Filed December 30, 1926. No. 1,763,396. See cut.

Claims: A distributor of the character described including a central hopper having a discharge opening therein, and rotary distributing blades arranged exteriorly of said hopper and around the opening and in position to receive material through said opening.

A distributor of the character described including a hopper, distributing blades in position to receive material from the hopper and discharge said material in all

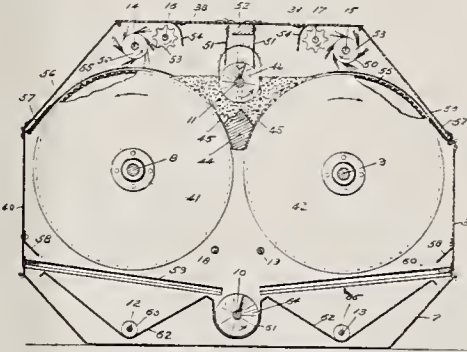
general directions from the hopper, and guides arranged approximately on opposite sides of the blades and ex-



tending in the same general direction for directing the discharge of the material.

Grain Separator. Harry L. Johnson, Minneapolis, Minn. Filed December 3, 1926. No. 1,762,632. See cut.

Claim: In a grain separator, the combination including a pair of horizontal, rotatable cylinders, forming a

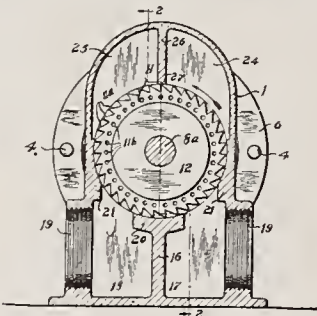


trough for unseparated grain, and having profusely distributed pockets in their peripheries for removing grain of a predetermined size away from the trough, and adjustable means, having moving parts, for acting upon the grain to feed in through the trough.

Bearing Date of June 17, 1930

Rotary Cutting, Mixing, and Attrition mill. Robert C. Hopkins, Alliance, Ohio. Filed March 12, 1928. No. 1,764,020. See cut.

Claim: A rotary mill including a housing, a plurality of revolving disks within the housing, cutting edges upon the interior of the housing in close contact with the



peripheral portions of the disks, and means for passing oil and the like through the housing between the disks and said cutting edges.

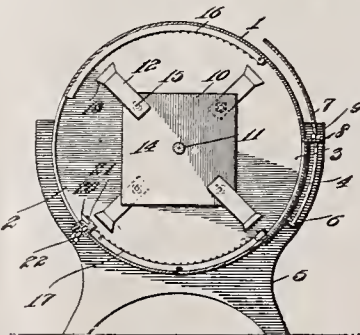
Art of Disinfecting Seeds. Walter P. Raleigh, Ames, Iowa, assignor to Pittsburgh Plate Glass Company, a corporation of Pennsylvania. Filed April 26, 1928. No. 1,764,888.

Claim: The herein described finely pulverized disinfectant for corn and like seeds comprising an inert carrier and an addition product of hexamethylene triamine and a mercurial salt.

Bearing Date of June 24, 1930

Cutting and Grinding Mill. Steve R. Gately, Syracuse, Neb. Filed May 25, 1927. No. 1,767,921. See cut.

Claim: In a mill of the class described, a casing having an inlet at one side and an outlet at the other, an adjustable door for varying the size of said outlet ac-

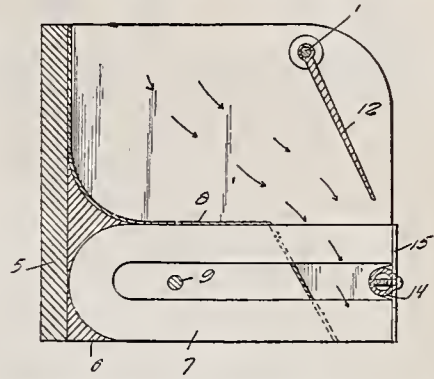


ording to the size of the material to be discharged therethrough and means within the casing for first cutting the material into small pieces for dispensing through the inlet and then crushing it.

Separating Device. Oscar B. Filkins, Stanton,

Mich. Filed September 1, 1927. No. 1,768,244. See cut.

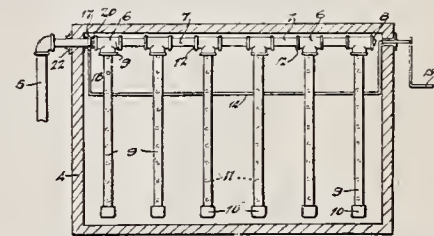
Claim: In a magnetic separator of the character described, a hopper open at its top, bottom and front sides, a plurality of spaced horizontally extending magnets arranged within the lower portion of the hopper, and



spacing means between the magnets, said spacing means terminating inwardly of the outer ends of the said magnet to permit the material to be separated to pass between the end portions of the magnets.

Grain Drying Device. Joseph Campbell, Milner, B. C., Canada. Filed September 23, 1929. No. 1,766,742. See cut.

Claim: A grain drying device in combination with a grain storage bin comprising, a main distributing pipe consisting of a consecutive series of T-shaped pipe connectors united by nipples of the nature of short lengths of pipe to form a main supply member, each said connector being movable about the axis of said main pipe, pipes having a series of small perforations spaced apart and extending throughout their lengths one of said pipes being secured to each said branch connector and mov-



able with it, whereby a series of pipes disposed in parallelism is made available, said main pipe being connected to a source of dry air under pressure, whereby the floor surface of said bin may be impinged by a numerous series of spaced air jets and numerous air currents distributed amongst the stored grain to percolate through it and absorb the moisture enclosed therein and whereby said perforated pipes may be pivotally raised from the horizontal floor surface to the vertical for the purpose of clearing the said bin.

## GRAIN WORLD

### FARM RELIEF IN FRANCE

According to a recent report, a bill is under consideration by the French government providing extensions of credit for the purchase of farm machinery equipment and another bill contemplates provision for a loan of about \$9,800,000 at 2 per cent interest, to be devoted to the improvement of wheat and agricultural products. Unfavorable reports of crop conditions continue to be received and it is generally expected that this year's wheat production will fall short of the 1929 crop.

### CORN EXPORTS DECREASE

The 1930 area sown to corn in the two European countries so far reported, Czechoslovakia and Bulgaria, amounts to 2,002,000 acres, a decrease of 11.5 per cent from that of those countries last year.

Exports of corn from the United States, the Danubian countries, Argentina, and the Union of South Africa from November 1 to the latest dates available amount to 127,941,000 bushels, a decrease of 20.5 per cent from the shipments during the same periods of the preceding year. United States corn exports were reported to be still showing a decrease while Argentine exports increased considerably with the return of more favorable weather for shipping.

### FOREIGN WHEAT PROSPECTS

Unfavorable weather conditions during June caused deterioration of the wheat crop in several of the important European wheat producing countries, according to a cable from Agricultural Commissioner L. V. Steere at Berlin. Members of the grain trade in France whose estimates are considered to be reliable are of the opinion that the crop in that country will be only medium even with favorable weather from now until harvest, while reports in the agricultural papers of France are even more pessimistic. The outlook in Italy is slightly less favorable than at the beginning of the month. Poland also reports deterioration of the crop due to heat and drought. Conditions in the Baltic and Danubian countries continue very good. Reports received from Morocco state that the yield is not reaching earlier expectations.

THE condition of winter barley in Czechoslovakia as reported this month, was 100 per cent of the 1923-1929 average, compared with 109 per cent on June 1 last year and 100 per cent in 1928.



## FIELD SEEDS

ACTIVITY FOLLOWS DULLNESS IN  
NEW YORK SEED MARKET

By C. K. TRAFTON

The New York market was featured by a striking resumption of activity with the advent of August after a period of extreme dullness throughout July. Early in the period the only signs of life were in the bird seed varieties while it was almost entirely a waiting game so far as the leading field and grass varieties were concerned with neither buyers nor sellers disposed to rush matters in advance of the usual fall season opening until the final outcome of all of the new crops was more definitely assured.

Buyers, on the one hand, were reluctant to anticipate future requirements because they naturally looked for a more advantageous basis when the new crops begin to move. On the other hand, sellers were not inclined to shade prices in order to move the balance of their old crop supplies, partly because they were generally admitted to be very small, and partly because they were apprehensive of extremely poor crop yields in many sections as a result of the unusually long period of very hot and dry weather.

First signs of renewed animation became visible during the last week in July and during the following week it was the general report that the late summer season had opened with usual energy, buyers not only in the South, but in the middle Atlantic states as well, coming in for their regular supplies of seeds of nearly all kinds. In nearly all cases, the result was an advance in prices, though a few varieties are on a lower basis than that quoted a month ago.

Crimson Clover for a time threatened to bear out the predictions previously heard in some pessimistic quarters that this item was to be a "dead letter" this year, but toward the end of July a moderate degree of activity developed. This was evidently due to the fact that holders of old crop supplies became somewhat more eager to sell as the time for new crop arrivals from Europe drew near. At any rate, the spot basis was lowered from 10 cents to 8½ cents, duty-paid. The foreign arrivals were about 3,625 bags, compared with 1,840 bags for the same period last year.

Timothy was the only other item to show a decline, the basis being reduced from 11 cents to \$1¼ cents, because of general expectations of a fairly good crop outturn. Only one shipment of 422 bags to France was reported.

Red Clover of domestic origin advanced two cents or to 24 cents during the period, which was evidently a belated reflection of the increase in the duty on the imported variety. At any rate, the belief seemed to be quite general among experienced and conservative distributors that because of the high duty there was not much chance for business in the foreign seed for the present. As a matter of fact, some of them have dropped this item from their table of quotations.

Kentucky Bluegrass also advanced one cent as holders of the very small old crop supplies were decidedly strong in their views because of reports of very poor crop prospects, leading to expectations that the new season would open with prices at an unusually high level. The spot basis is now 34 cents for 21-pound seed and 33 cents for 19-pound seed. Redtop is also 1½ cents higher because of unsatisfactory crop prospects, being now quoted at 23½ cents. Alfalfa advanced ½ cent to 26 cents.

## INDIANA SEED NEWS

By W. B. CARLETON

Both wholesale and retail seed dealers in Indiana towns and cities report there has been no improvement in trade during the past four or five weeks, but in the event that the general drought is broken soon, dealers say they look for a bettering of conditions before the first of September. Many of the Indiana farmers have announced they will sow a smaller wheat acreage this year; in fact, in some sections reports indicate that the acreage to be sown this fall will be the smallest in many years. Farmers in the southern and central parts of the state are greatly discouraged at the prolonged drought. Crops have literally burned up in the fields and much of the corn is so badly damaged by the continued dry spell that even a hard rain will not redeem it and in some cases it will not even be good for fodder. Late meadows and many Alfalfa fields have dried up and pastures are dead and beyond any hope of "coming back." There was a water shortage among farmers in many of the

counties in the southern part of the state late in July and early in August. Because of the fact that so many of the corn fields have literally burned up, it is said that many of the farmers are holding what old corn they had on hand and will expect to receive a good price for this grain before the present year is up. The farmers enter the fall and early winter this year with a great shortage of feed. Some of them now are using the feed that they generally store away for winter use. The outlook in the southern part of the state is the worst that has appeared in many years and losses to farmers will run into many thousands of dollars. Mill feed manufacturers say the demand for feed is getting better all the time.

A new area in agriculture has come to southern Indiana and the days have passed when farm lands in that section of the state will be producers of but one seasonable crop, it has been predicted. Wheat, a major crop, since the days of the early pioneers, has brought about a change. And from now on, indications point to a majority of the acreage planted to Winter wheat, will bear a second crop, paying farmers double, if not more, for their year's work. On farms in Union Township, Vanderburgh County, and in other sections of southern Indiana, soy beans have been sown after the wheat has been removed. As a result, the soy bean acreage in Vanderburgh County has been greatly increased over that of last year. The same is true of other counties in the southern part of the state. It is the wheat combine that has made the change which is to add to the income of the farmers, in the opinion of John F. Hull, county agricultural agent of Vanderburgh County.

Through the speed of the combine in harvesting the wheat and its saving of labor, the combine makes the sowing of the second crop practicable. More farmers than ever before will harvest crops of soy beans this year with less time and labor expended than the average farm operator used in harvesting his wheat crop in the years past. Through the second crop program, which is being instituted this year, it is expected that southern Indiana will become the leading producing district for soy beans in the world, according to County Agent Hull. More progress in the agricultural methods have been made during the past five years than in decades previously, Mr. Hull declares, and the basis of the industry is undergoing a remarkable change. The perfection of the combine harvester and the pulverator are two of the greatest developments that have come to the industry in many years, says Mr. Hull.

As an indication of the practicability of the wheat combine, Mr. Hull pointed to the record of an old-fashioned wheat threshing rig recently in use on his farm near Patoka and that of a modern combine. In two days, it was discovered, the combine, manned by only three men, harvested and threshed more than twice the amount of wheat than did the old fashioned rig with its crew of 15 or 16 men. The perfection of the pulverator permits preparation of the ground immediately after the removal of the wheat and the sowing of the second crop either in the same operation or in another as soon as the ground has been plowed and put into shape. This plan of operation results in minimum labor and expense and makes possible the greater profit of the second crop. In the introduction of such practices, Mr. Hull believes the farmer will be placed on the same production basis as the modern manufacturer where he can produce more crops at a lower cost and realize greater profits accordingly.

A \$20,000 fire swept the village of Pleasant Gardens, near Greencastle, Ind., on July 16 and among the losers was the Holesapple feed store. The fire started in the rear of the store and the damage is partly covered by insurance.

Gerhardt Eberhardt, 80 years old, who for many years was engaged in the feed and hardware business at Dale, Ind., died at his home in that town on July 12, death being due to the infirmities of age. He is survived by four children. He was widely known to the trade in southern Indiana.

Charles Kindermann, of William Kindermann's Sons, is one of a committee appointed by the Boonville Business Mens Association at Boonville to arrange for a series of meetings between the business men of Boonville and the farmers of Warrick County, the purpose of the meetings being to get

the merchants and farmers to work in closer harmony. A series of similar meetings were held last year and were quite successful.

Corn borer patrol stations in the important roads in Henry County, Ind., were opened late in July under the direction of W. T. Kammerer, chief of staff of the field forces of the United States Department of Agriculture.

Reports from many of the counties in Indiana state that in many instances farm agents are advising the farmers to feed this year's wheat crop to the hogs, pointing out that it is the cheapest and best fields that they can have at this time.

Failures of spring seedings of clovers and grasses are common in Shelby County as a result of the dry weather that prevailed in that section for several weeks. A number of the farmers in the county have consulted Calvin Perdue, county agricultural agent, as to steps to be taken to avert a hay and pasture shortage next year.

## MILWAUKEE SEED NEWS

By C. O. SKINROOD

The outlook is for a short crop of Clover seed for this season, according to some of the seed handlers of Milwaukee. The drought which has hit many states and has caused untold damage to pastures, corn, and other grains, likewise had a disastrous effect on the production of field seeds. This is the prediction at the present time, although the dealers say that the exact production cannot be stated at this time.

Milwaukee seedsmen declare it is very significant that the dry weather almost centered over the area which is the chief Red Clover seed production area of the United States. Ohio, Illinois, and Indiana, they point out, have been the very center of the drought damage section and these states are the most important in seed output. Michigan is also affected by the dry weather, but not as badly as the other three states. This state produces considerable Red Clover seed.

Wisconsin, on the other hand, has suffered less than most of the states in question. The seedsmen say that the lack of rain has reduced the second crop of clover, the stand is not so thick and it did not stool out as it should. In general, it is estimated that the Red Clover seed crop will be considerably under normal, perhaps, 75 to 80 per cent of the usual yield. As a result this state will help also in creating a scarcity of clover seed, while the really dry states will have only a fraction of their normal seed production, it is believed.

The Red Clover seed market has advanced sharply in the last few days in line with the bullish outlook. It is now quoted around \$23 to \$27, a gain of about \$3 over the previously quoted price. Still further advances in prices are predicted if the weather continues as dry and hot as it has been in recent weeks.

The Wisconsin seed outlook varies quite a little in the different counties. Some reports show that certain sections had fairly ample rain and hence the growth of clover has been excellent. In other counties, especially along the Lake Michigan shore, it was very dry and here the damage to Red Clover seed production will be considerable. This variation in yield and growth will make it difficult to make a correct report on the Wisconsin seed production. The dealers are agreed, however, that there will be a short crop of Red Clover seed this year.

The Timothy seed crop is believed to be pretty close to normal, according to the Wisconsin handlers. The crop matured to a large extent before the dry weather struck the country. Hence, the yields are expected to be around the average. The old crop of Timothy seed was well cleaned up and the market is in good condition. There have been no advances in the Timothy seed market as there have been in other lines of seeds.

The White Clover seed market is reported as very firm, the price advancing in line with other seeds with the supply rather short. It has advanced in price around 8 to 10 cents and is now quoted in the neighborhood of 35 cents.

The Alsike crop is reported as about a normal average yield, this crop too getting under the wire largely before the dry weather had done much damage.

(Continued on Page 113)





# ELEVATOR AND GRAIN NEWS

## OHIO AND MICHIGAN

The Cedarville (Ohio) Farmers Grain Company has disposed of its property.

Harvey Powell bought at public sale the local elevator at Pikesville (Greenville p. o.), Ohio.

The Nevada (Ohio) Farmers Grain Company has discontinued the storing of wheat in its elevator.

The Diamond & Cool elevator at St. Johns, Mich., has been taken over by E. C. Smith, of Ovid, Mich.

The Co-operative Elevator & Milling Association is making extensive alterations in its plant at Pigeon, Mich.

The Trinidad (Colo.) Bean & Elevator Company has opened offices at Detroit, Mich. L. W. Van Vleet is president of the company.

The Delaware Farmers Elevator Company has leased the plant of the Radnor (Ohio) Farmers Elevator Company which recently failed.

The Cass City (Mich.) Grain Company and the Michigan Bean Company have merged and are operating under the name of the latter firm. The deal involves 26 elevators.

The elevator of the Marion (Ohio) National Mills has been reopened after being idle for two years. The plant is owned by the J. J. Curl Company, Inc. The house has a capacity of 70,000 bushels.

The Ashville (Ohio) Grain Company is removing its old steam drier and modernizing its plant by installing a Randolph Direct Heat Drier. This makes the second direct heat drier of the Randolph type to be installed in Ashville, the first one having been installed in the elevator of the Scioto Grain Company several years ago.

## ILLINOIS

Mathis Bros. are remodeling their grain elevator at Prophetstown.

H. J. Glabe, formerly of Melvin, has purchased the Cameron elevator at Elliott.

Electric power has been installed in the F. A. Bruns' elevator at Ballou (Richey p. o.).

The Wing (Ill.) Grain Company has installed a new air-lift truck dump in its elevator.

Rosenbaum Bros. will build a 1,000,000-bushel concrete addition to the Calumet elevator at South Chicago.

The Dawson Park (Stockland p. o., Ill.) Elevator Company has succeeded the Dawson Park Grain Company.

The Ophiem Grain Company has been operating since July 1 the elevator of the Alpha (Ill.) Grain Company.

The grain business of the late T. F. Grady at Empire (Farmer City p. o.), is being continued by J. E. Grady.

G. Ives & Son are overhauling their elevator at New Boston and building a new office in which scales are being installed.

Ura Seegar, of West Lebanon, Ind., has leased the elevator at Allison (Vincennes, Ind., p. o.) and also the elevator at State Line (Dennison p. o.).

The Charleston (Ill.) Elevator Company has recently been incorporated with a capital of \$30,000. Incorporators are Arthur E. Craig, Edward Chilton and Harry T. Wright.

W. A. Kinnett plans to rebuild his elevator at Riggston, which burned recently. He has constructed an office and temporary bins, and installed a dump to take care of the new wheat.

The Sterling-Rock Falls Co-operative Market Association is now using its new 30,000-bushel concrete elevator, which was recently completed at Sterling. The house is equipped with General Electric power.

Claude W. Hatch, who operated the Beggs & Hatch elevator which burned recently at Greenville, reports that he will discontinue the grain business for a few months because of ill health in his family.

The Turner-Hudnut Company, of Pekin, has taken over the grain business of B. F. McFadden & Sons at Forest City. John Pemberton will continue in charge. The McFaddens have also closed their grain business at Havana.

The A. E. Staley Company is building a new 20,000-bushel elevator at Dalton City, which is to

be completed the latter part of August. The house replaces the old one which has been taken down. A Diesel engine will be used for power.

Ralph Wells, Inc., an old established grain firm at Monmouth, has been incorporated to take care of expansion in business. The organization has purchased the South Third Street elevator which will be improved. An elevator at Gerlaw has also been leased.

The grain firm of G. C. McFadden & Co., Peoria, has dissolved partnership. E. T. McFadden, former member of the firm, has taken over elevators at Conover, Kilbourne, Oakford, Atterberry, and Saldora, which he is operating as the E. T. McFadden Grain Company.

## INDIANA

W. E. Small, of Hawthorne, N. J., has bought the Nichols Grain & Hay Company at Cook (Cedar Lake p. o.).

The Jones Bros.' elevator at Stonebluff has been leased by the Farmers Elevator Company of Veedsburg.

Arnold & Engler's elevator at Montpelier has been taken over by the Hoosier Grain Company whose elevator at Greentown burned recently.

The farmers of Johnson township have purchased the Scircleville (Ind.) Grain Company's elevator which they will operate with Jesse Doan as manager.

A large motor has been installed and extensive repairs made at the Cutsinger elevator at Edinburg. Motors will be installed in both houses after harvest.

The Cook Grain Company has sold its two elevators at Plymouth to Ivan Syler. One of the buildings is leased to a poultry concern, and Mr. Ivan will operate the other house.

The Dubois County Farm Bureau has overhauled and is operating the elevator and mill at Huntingburg, formerly operated by the defunct Wallace Milling Company. New machinery, including a 60-horsepower feed grinder, has been installed.

The Central States Elevator Corporation, Indianapolis, Ind., has bought and leased elevators throughout Indiana at Manila, Fountaintown, Rays Crossing, Morristown, Fairland, Shelbyville, Montezuma, Rockville, North Grove, Amboy, Clarks Hill, Huntingburg, and Scircleville.

The Indiana Farmers Elevator Co-operative Association has been operating, since July, 13 elevators in Montgomery, Tippecanoe, White, and Pulaski Counties, which were formerly operated by the Crabbs, Reynolds, Taylor Company of Crawfordsville. It has also taken over the Ashby elevator at Ladoga. Claude Dunnington, of Crawfordsville, will be in charge of the properties.

## MINNESOTA AND WISCONSIN

The Rock County Co-operative Elevator Company has recently been organized at Luverne, Minn.

The Archer-Daniels-Midland Company is planning the building this fall of a flaxseed storage unit at Superior, Wis.

The J. H. Fisch Company, of Barnesville, Minn., has contract for repairing the Farmers Elevator Company's plant at Tenney, Minn.

The Farmers Elevator Company, Kenneth, Minn., has recently taken over the elevator of Greig & Son, which gives it two houses at this point.

The new 2,000,000-bushel elevator which the Northwestern Railroad is building at Milwaukee, Wis., is scheduled for completion by September 1.

The Farmers National Grain Corporation has taken over the Quinn-Shepherdson Company, of Minneapolis, Minn. B. F. Loosemore will be in charge.

The Osborne-McMillan Elevator Company, Minneapolis, Minn., will start construction at once on a 400,000-bushel terminal elevator at Thief River Falls, Minn.

Three elevators which are under construction at Duluth, Minn., and Superior, Wis., are nearing completion—the Occident Terminal, the Great Northern plant, and the 2,000,000-bushel Peavey plant.

The Farmers Union Terminal Association, St. Paul, Minn., is building a 1,500,000-bushel addition

to its terminal elevator. The new unit will be completed this fall and will increase the storage capacity of the plant to 2,300,000 bushels. The structure will cost \$200,000.

August Evert has sold his interest in the Kennedy (Minn.) Grain & Supply Company to McCabe Bros. Company of Duluth and Minneapolis, Minn. A. C. Hjeldness has been retained as manager.

Eight storage bins, 110 feet high and 18 feet in diameter, are being constructed at Minneapolis, Minn., for the International Milling Company. The estimated cost is \$50,000. The Burrell Engineering & Construction Company, Chicago, has the contract.

The Farmers of Dane County, Wis., have organized the Dane County Farm Bureau Co-operative Warehouse Association, to operate at Madison, Wis. They have been incorporated for \$8,000. W. R. McClellan is manager. Grain, feed, and fertilizers will be handled.

The Farmers National Grain Corporation has leased 3,500,000 bushels' additional storage space in Minneapolis, Minn.; 1,000,000 bushels from the Twin City Trading Company; 1,500,000 bushels from the Union Elevator Company; and 1,000,000 bushels from the Hunter Elevator Company.

The Cargill Elevator Company has awarded contract for a 2,135,000-bushel addition to Elevator T at Minneapolis, Minn. The new tanks will be 96 feet high and will cover an area of 100 by 330 feet. The new unit will be ready to receive grain early in September. With its completion the company will have a total storage capacity of 4,000,000 bushels.

The North Dakota-Montana Wheat Growers' Association has recently purchased the properties of the Powers Elevator Company of Minneapolis and Duluth, Minn. It has also taken over 38 elevators in North Dakota and six in Montana. The association owns a 150,000-bushel terminal in Minneapolis and 100 interior elevators which gives it a total storage capacity of about 3,000,000 bushels.

## IOWA

Frank J. Krob has bought the John J. Fiala elevator at Solon.

The Johnson Grain Company has opened its new elevator at Burlington.

The Wright Grain Company plans to build a grain elevator at Mediapolis.

Turner Bros. have installed a new motor and a 20-ton scale in their elevator at Griswold.

Lee Davis, of Scranton, has leased the D. Milligan Company's grain elevator at Farnhamville.

Huey, Sell & Co., Inc., grain firm at Paton, is building a concrete storage unit of 12,000-bushels capacity.

Eggland Farms, Mount Vernon, Iowa, are installing new equipment and increasing their storage capacity.

The two elevators at Pocahontas, leased by Davis Bros. & Potter, has been taken over by the Quaker Oats Company.

The Cedar Rapids (Iowa) Grain Company is repairing its elevators. New improvements will cost approximately \$4,000.

The elevator of the Farmers Co-operative Association at Ireton is being extensively repaired to take care of the new grain.

The new 25,000-bushel elevator, which has been under construction at Ayrshire is now completed. William Martin is manager.

The Peoples Exchange Company, Guthrie Center, has been incorporated with a capital of \$50,000 to deal in grain, seed, coal, etc.

Adrian Chittenden has sold his interest in the Shell Rock (Iowa) Grain & Milling Company to James T. Parsons of Chester.

Farmers in Lyon, Sioux, Osceola, and O'Brien Counties, Iowa, have organized to establish a grain terminal and feed mixing plant at Sheldon.

George E. Conant and J. O. King have purchased William G. Schneckloth's interest in the Gladbrook (Iowa) Consolidated Grain & Lumber Company.

The Concord Elevator Company, of Luton, has been incorporated with a capital of \$5,000. Incorporators are C. J. White, E. E. Schultz, and R. C. Mitchell.

A 20,000-bushel storage unit of hollow tile has



been built at Iowa State College at Ames. The bins are arranged so that they can be filled and emptied by air hoists electrically controlled from the floors of the central structure.

The Piper Grain & Milling Company, of Cedar Rapids, has installed a 15-ton Fairbanks Truck Scale in the elevator at Mount Auburn which it recently bought.

Clyde Smith has completed his new 20,000-bushel grain elevator at Grundy Center. The new house replaces the one that burned. Mr. Smith will handle coal as a side line.

The Conrad (Iowa) Farmers Grain Company has made several improvements in its plant, including the extension of its office for storage space, re-shingling, and the adding of a cement and lime storage room.

The Burrell Engineering & Construction Company, Chicago, has contract for the erection of the Chicago, Burlington & Quincy Railroad's new 200,000-bushel elevator at Council Bluffs, announcement of which was made in a former issue.

## EASTERN

Ewart & Lake, Inc., elevator operators at Groveland, N. Y., has gone into bankruptcy, with liabilities of \$1,800.

J. A. Peterson, manager of the Western Maryland grain elevators at Baltimore, Md., has installed a portable elevator leg at Port Covington.

The Gow Company of Cleveland, Ohio, has started work on the new 1,300,000-bushel elevator which the International Milling Company is building at Buffalo, N. Y. The new unit will bring the company's total storage capacity up to 4,800,000 bushels. The project will cost \$350,000.

The Co-operative Farmers, Williamstown, Mass., has been incorporated to take over the Williamstown Farmers Exchange. The company is capitalized at \$25,000 and handles grain and feed. Victor H. Boeckh, of Fitchburg, who organized the company, has also incorporated five co-operative farmers exchanges in Massachusetts. Each company is capitalized at \$25,000 to deal in wheat, corn, oats, barley, grains, feeds, and cereals.

## SOUTHERN AND SOUTHWESTERN

The Texas City (Texas) grain elevator is opening an export department.

The Sharon Grain Company has equipped its plant at Huntoon, Texas, with new ball bearings.

The Diamond Elevator Company has completed the 500,000-bushel addition to its plant at Sherman, Texas.

The new 500,000-bushel grain elevator of the Texas Star Flour Mills, Galveston, is receiving wheat.

The J. C. Crouch Grain Company, of Dallas, Texas, is completing an addition to its elevator at Lubbock, Texas.

The Rosenbaum Grain Corporation, Delaware, has increased the capital of its Oklahoma company from \$75,000 to \$79,000.

The Florsheim Mercantile Company has equipped its elevator at Roy, N. M., with a ball-bearing boot, cups, ball bearings, etc.

Contract has been let for the building of a two-story concrete office building for the Houston (Texas) Public Elevator.

The Blotz-Henneman Grain Company has installed two new Fairbanks Morse Motors in its elevator at Conlen, Texas.

The Clyde Co-operative Association, Medford, Okla., is operating its new 50,000-bushel elevator which is of cribbed and iron-clad construction.

The Driftwood (Okla.) Co-operative Elevator Company's plant has been taken over by Brakey & Mock, of Cherokee, who are operating it.

The Temple (Texas) Bonded Warehouse has been incorporated with a capital of \$5,000 for the purchase and maintenance of grain elevators.

The Oklahoma Wheat Growers' Association has completed its new 1,000,000-bushel grain elevator at Enid, Okla. Jones-Hettelsater Construction Company had the contract.

The second storage unit to the municipal grain elevator at Houston, Texas, will be completed about August 15. The first new addition of 750,000 bushels was officially opened July 24.

The Hendrick-Shelley Grain Company, of Houston, Texas, has been incorporated with a capital stock of \$4,000. Incorporators are F. W. Hendrick, Thomas Shelley, and J. C. Hendrick.

The new 1,200,000-bushel storage unit of the Wichita Mill & Elevator Company, Wichita Falls, Texas, is now in operation. The company's total storage capacity is 2,000,000 bushels.

Jones-Hettelsater Construction Company, Kansas City, Mo., has contract for the building of a 500,000-bushel storage unit to the plant of Kimbell Milling Company at Fort Worth, Texas. This is the sev-

enth addition to the plant which, when completed, will give it a total storage capacity of 3,000,000 bushels.

The Montgomery Southern Elevator Company, Houston, Texas, has been incorporated with a capital stock of \$60,000. Incorporators are Lee L. Penn, I. C. Wicker and A. E. Montgomery.

The Rosenbaum Grain Corporation is operating its elevator at Fort Worth, Texas, which was formerly leased to the Henderson Grain Company. Frank Rider is in charge of the Fort Worth office.

Newton & Wallace, Inc., of Jacksonville, Texas, has been incorporated with a capital of \$25,000 to deal in agricultural and farm products. Incorporators are F. F. Newton, Perry Wallace, and J. H. Roney.

Grain handling equipment is being installed in the new 6,000,000-bushel elevator which the Galveston (Texas) Wharf Company is building. The house is being rushed to completion and will soon be ready to receive grain.

The Hovels Elevator & Storage Company, which has recently been chartered at Stuttgart, Ark., will build an elevator which will be equipped with drying machinery and a modern laboratory for cleaning and testing rice.

The Norfolk (Va.) Terminal Elevator Corporation has been chartered with a capital stock of \$100,000. The new corporation is leasing the old Norfolk & Western elevator on the Elizabeth River. The organization is sponsored by the Davis Milling Company. F. E. Davis is president of both companies.

## MISSOURI, KANSAS AND NEBRASKA

The Brown Grain Company is rebuilding its office at Loup City, Neb.

E. D. Leach announces that he will build an elevator at O'Neill, Neb.

H. V. Parker has installed new ball bearings in his elevator at Hugoton, Kan.

Chris Reimers has sold his two elevators at Malmo, Neb., to a Mr. Horman.

A. C. Dunning has added a truck lift to the equipment in his plant at Shelby, Neb.

Anthony Reilly has purchased the T. B. Hord Grain Company's elevator at Brayton, Neb.

The Randall (Kan.) Farmers Union has installed a new boot and other equipment in its elevator.

A new truck dump has been installed in the plant of the Security Elevator Company at Ford, Kan.

J. D. Buchman is operating the J. Carter Fowler elevator at Paola, Kan., which he recently bought.

The J. J. Mullaney Company will spend about \$1,000 in improving its elevator at Fordyce, Neb.

The Farmers Elevator Company has installed an airblast car loader in its plant at Mount Hope, Kan.

The Haysville (Kan.) Elevator & Supply Company plans to increase its storage capacity this fall.

The Crittenden Grain Company, Rulo, Neb., plans to rebuild its elevator which burned last June.

New ball bearings have been added to the equipment of the Garden City (Kan.) Co-operative Company.

The Security Elevator Company has added a truck dump to its elevator at Joy (Greensburg p. o.), Kan.

The Pretty Prairie (Kan.) Co-operative Grain Company has added oil and gasoline as sidelines to its business.

The Wood Lake (Neb.) Grain Company has recently been organized to deal in grain, hay, coal, lumber, etc.

The Crawford (Neb.) Co-operative Grain Company has recently been incorporated, and is receiving wheat.

The Robert Bailey Grain Company has added a pneumatic truck lift to the equipment in its plant at Greensburg, Kan.

A. E. Miller is building an addition to his elevator at Elk Creek, Neb. He plans to install an electric truck dump.

The W. F. Kentopp Grain & Coal Company has bought the Maust elevators at Straussville (Route 4, Fall City), Neb.

The Conley Ross Grain Company has added some new high-speed conveyor buckets to its plant equipment at Madrid, Neb.

The Shannon Grain Company, of Kansas City, Mo., has taken over the elevator of the Farmers Elevator Company at Ellis, Neb.

The Farmers Co-operative Elevator Company will install a grain cleaner in its plant at Hemingford, Neb., to take care of the new crop.

The new 150,000-bushel concrete elevator of the Farmers Co-operative Elevator & Mercantile Association at Dighton, Kan., is now receiving grain.

The Salina (Kan.) Terminal Elevator Company is increasing its capacity from 500,000 to 750,000 bushels. Six large tanks and 10 smaller ones are

being added to the new unit which will be completed this month.

Two Fairbanks Morse Motors, a two-horsepower and a 7½-horsepower, have been installed in the Security Elevator Company's plant at Moscow, Kan.

The Stratton Grain Company is operating its new 1,000,000-bushel storage unit at St. Joseph, Mo. The company has a 2,000,000-bushel storage capacity at this point.

Nye Jenks Company, Bridgeport, Neb., is remodeling its elevator and equipping it with electricity. An addition has recently been added to the office.

Otto Bunch, of Webb City, Okla., has repaired his elevator at Geuda Springs, Kan., which had been closed for a year, and is now operating as the Otto Bunch Grain Company.

The new 5,000,000-bushel grain elevator of the Cargill Commission Company, recently built at Omaha, Neb., has been receiving grain since July 19. L. L. Crosby is manager.

The N. Sauer Milling Company, of Cherryville, Kan., is using this summer the grain elevator at Liberty, Kan., which was formerly used by the Farmers Co-operative Company.

The new 400,000-bushel addition to the Public Terminal Elevator at Wichita, Kan., is completed and receiving grain. The Sam P. Wallingford Grain Corporation operates the elevator.

The Burke Grain Company is building a concrete elevator at Little River, Kan., which is to be completed late this month. The total storage capacity of the elevator will be 250,000 bushels.

The Stafford County Flour Mills Company is building a 35,000-bushel storage unit at Hudson, Kan., which when completed will give the mill a total storage capacity of 195,000 bushels.

Because of its failure to obtain suitable leases from the Rock Island Railroad for a site for a new elevator, the Farmers Co-operative Association has decided not to build an elevator at Brewster, Kan.

The T. B. Hord Grain Company has discontinued operating its elevator at Fullerton, Neb., and has taken over the house of the Farmers Elevator Company which it is operating under the management of W. J. McConnell.

The Castleton (Kan.) Co-operative Equity Exchange is operating its new 18,000-bushel grain elevator, recently completed. The company will add feed and coal as sidelines. The elevator has modern equipment, including a steel truck lift and grate, a 15-horsepower Fairbanks Morse Engine, a 2,000-bushel leg, and other machinery.

## THE DAKOTAS

The Occident Elevator Company is building a grain warehouse at Kenmare, N. D.

The Wessington (S. D.) Springs Grain Company has been taken over by John Newtharth.

The Farmers Union Terminal Association is building a \$50,000 elevator at Fargo, N. D.

The Erickson Independent Elevator Company has completed its new \$15,000 elevator at Kadoka, S. D.

The farmers around Norhtgate, N. D., are forming an organization and planning to buy or build an elevator.

A Union Grain Shipping Association was recently organized at Garrison, N. D., with Paul Ziegler as president.

The Atlas Elevator Company has started construction on a 30,000-bushel grain elevator at Winfred, S. D.

The Farmers Union at Edgeley, N. D., is planning on building or leasing an elevator to take care of the new crop.

The Farmers Co-operative Elevator at Dazey, N. D., has been reorganized and is now operating as the Farmers Union Elevator.

Work is to start soon on the 500,000-bushel elevator for the Farmers Union at Williston, N. D. U. L. Burdick is one of the principals.

The new elevator which George P. Sexauer & Son are building at Onida, S. D., is nearing completion. A feed mill is also being built.

The Tri-State Milling Company, Sturgis, S. D., has completed and is operating its new 70,000-bushel elevator at Belle Fourche, S. D.

William Dinehart plans to rebuild his elevator at Chamberlain, S. D., which burned recently. He has already opened an elevator at Pukwana.

Messrs. Zehnpfenning, Wudel & Friedrich, elevator operators at Parkston, S. D., have purchased the Farmers Elevator at Beardsley which they intend to operate.

Contract has been let to the T. E. Ibberson Construction Company for the building of a 52,000-bushel elevator for the Regent (N. D.) Co-operative Equity Exchange.

Henry Schneiderman has purchased the old Atlas elevator on the Great Northern Railroad at Lennox, S. D. The elevator, which has been closed for



several years, will be overhauled and put in operation this fall.

L. D. Waitt Company, Minneapolis, Minn., has contract for the new elevator which is being built at Wall, S. D.

The Farmers Union Terminal Association is building elevators of 1,000,000 bushels capacity each, at Wahpeton, Jamestown, and Bismarck, N. D. Each house will cost about \$100,000. A 500,000-bushel elevator will be built at Max, N. D.

#### WESTERN

Poage Bros. are operating their new grain elevator at Yoder, Wyo.

The Fort Laramie (Wyo.) Grain Association was recently organized.

E. G. Lee is forming a Farmers Co-operative Elevator at Oswego, Mont.

A Co-operative Grain Marketing Association was recently formed at Newcastle, Wyo.

The Boyd-Conlee Company is installing a new air dump in its plant at Valleyford, Wash.

The Kahlotus (Wash.) Warehouse Company is building a 64-foot addition to its warehouse.

The Cheney (Wash.) Grain Growers, Inc. has acquired the Martin warehouse at Tyler, Wash.

The Mark P. Fuller grain warehouse at Albion, Wash., is being remodeled to handle bulk grain.

The Empire Warehouse Company is building a grain warehouse, 50 by 100 feet, at St. John, Wash.

The Holly (Colo.) Grain & Products Company has completed a new warehouse for the storage of Alfalfa meal.

The Oakesdale (Wash.) Grain Growers, Inc. recently purchased the Palmerton-Moore 100,000-bushel grain warehouse.

The new grain elevator at the port piers at Tacoma, Wash., is nearing completion and is about ready to receive grain.

The Hazelton (Idaho) Elevator is building a 50 by 100-foot warehouse which it hopes to complete in time to handle the new crop.

The Equity Elevator & Trading Company, Grace, Idaho, is erecting a building adjoining its plant for the storage of agricultural implements.

The Milwaukee Grain Elevator Company has started work on a 70 by 32-foot warehouse at Colfax, Wash. The old building will be repaired.

The Imperial Grain Elevator Company has closed its house at Hinsdale, Mont., for the rest of the year, due to unfavorable crop conditions.

The Farmers National Grain Corporation has opened a temporary office at Great Falls, Mont. C. H. Green, of Minneapolis, Minn., is in charge.

Charles B. Stout, of the Dixie-Portland Flour Company, has taken over the Longmont Farmers Milling & Elevator Company's plant at Denver, Colo.

The Equity Co-operative Elevator Company will build a 53,500-bushel addition to its elevator at Conrad, Mont. The new unit will cost approximately \$10,000.

The Camas Prairie Grain Growers, Inc. has leased elevators at Fairfield, Corral, and Hill City, Idaho, from the Colorado Milling & Elevator Company, of Denver.

A. E. Lukens and D. C. Howard have purchased the A. A. Wormell warehouse at Craigmont, Idaho, which they are operating as the Farmers Grain & Supply Company.

The Farmers Elevator Company has completed a 60,000-bushel annex to its elevator at Power, Mont. Some large coal sheds are now being built by the T. E. Ibberson Company.

The Alfalfa Growers Association of Prairie County, Montana, will build a cleaning and grading plant at Terry, Mont. The plant will have an hourly capacity of 60 bushels.

Work is to start shortly on the construction of the 104,000-bushel elevator for the Farmers Grain Exchange at Havre, Mont., announcement of which was made in a previous issue.

The Weston (Ore.) Warehouse Company will build a 75,000-bushel elevator at Blue Mountain Station. Work will start on the new project this fall and will be completed next spring.

Albertson & Cornell Bros., Inc., have been awarded contract for the construction of a 1,000,000-bushel unit to Terminal Elevator 4 of the Commission of Public Docks at Portland, Ore.

The 50,000-bushel warehouse of the O'Neill Grain Company at Rodna, Wash., has been taken over by the Cheney Grain Growers, Inc., who have also acquired the company's warehouse at Amber, Wash.

James Wade & Sons have been awarded contract for the construction of the 225,000-bushel sack grain warehouse which the Oneida County Grain Growers are building at Malad, Idaho, as previously reported.

The Boyd-Conlee Company has taken a long lease on the Bonners Ferry (Idaho) Lumber Company's dry sheds which they will convert into a govern-

ment bonded wheat warehouse of 1,000,000 bushels capacity. The improvement will cost approximately \$6,000. The plans include the construction of grain bins, the installation of grain handling machinery, scales, etc.

The Farmers Warehouse Association, Asotin, Wash., has purchased properties of the Limestone Company and plans to convert one of the buildings into a warehouse for sacked grain which will have a capacity of 40,000 sacks. The company's present warehouse has a capacity of 140,000 sacks.

The Washington-Idaho Grain Company, which was organized at Tekoa, Wash., last fall, has been incorporated with a capital of \$50,000, and will engage in buying, selling and warehousing of wheat. They will use the Palmerton-Moore Grain Company's warehouse which they purchased some time ago.

The Mikkelsen Grain Company is adding a total of 225,000 bushels storage to its plants at Culesac, Lewiston, Ferdinand, and Lapwai, Idaho, for the purpose of handling bulk wheat this fall. The warehouse at Lapwai will have a capacity of 100,000 bushels, and the units at Culesac and Ferdinand will be increased 25,000 and 40,000 bushels respectively, while the Lewiston house will be increased 60,000 bushels.

#### CANADA

The N. Bawlf Grain Company, Ltd., Winnipeg, Man., has taken over the grain accounts of the insolvent Solloway Mills & Co., at Winnipeg, Saska-

## FIRES—CASUALTIES

Basehor, Kan.—J. E. Heinley's elevator burned July 7.

Oriska, N. D.—The Monarch Elevator was recently destroyed by fire.

Lake Andes, S. D.—The Farmers Co-operative Elevator burned recently.

Oberlin, Kan.—Fire destroyed the elevator and mill of H. Q. Banta on July 9.

Mountain, Wis.—Fire damaged the feed warehouse of Olson & Co., to the extent of \$2,500.

Ruthven, Iowa.—Fire completely destroyed the George A. French & Co.'s grain elevator.

Clearwater, Man.—An electric storm recently destroyed the wheat pool elevator at this point.

Blucher, Sask.—Fire recently destroyed the wheat pool elevator and 2,400 bushels of grain.

Blair, Neb.—Fire damaged 7,000 bushels of grain in the elevator of the Rivett Lumber & Coal Company.

Melstone, Mont.—The A. Odegard grain elevator at Melstone was completely destroyed by fire on July 10.

Roswell, S. D.—The local elevator and 7,000 bushels of grain burned recently, causing a loss of about \$5,000.

Plymouth, Kan.—Hugh Thompson's elevator burned recently. The house contained no grain at the time.

Sherwood, Ohio.—The P. J. Leithauser elevator was destroyed by fire which caused a loss of approximately \$20,000.

Hebron, Neb.—Elton Blanchard was seriously injured while doing cement work in the pit under the Fuller grain elevator.

Little Rock, Iowa.—The elevator of the I. C. Miller Grain Company was destroyed by fire recently. Estimated loss is \$10,000.

Sussex, Wis.—The grain elevator of the Sussex Co-operative Company burned July 14, causing an approximate loss of \$20,000.

Gladbrook, Iowa.—William Schneckloth was fatally injured when he fell down the shaft of his grain elevator at Gladbrook.

Marshall, Texas.—Fire damaged the Marshall (Texas) Mill & Elevator Company's plant on July 29, causing a loss of \$10,000.

Rosebud, Mont.—The elevator of the Aetna Grain Company and a warehouse containing a considerable quantity of grain burned.

Hinton, Okla.—Snyder Grain Company's elevator and contents burned, causing a loss of \$18,000. Insurance partially covered the loss.

Kansas City, Mo.—Fire, which started in the basement of the J. G. Peppard Seed Company, caused a damage of \$400 on July 19.

North Baltimore, Ohio.—The elevator and two storage buildings of the North Baltimore Grain Company were destroyed by fire. Loss is estimated

at \$30,000. The stockholders have voted to begin at once the construction of a new elevator.

Enid, Okla.—C. N. Herrian, superintendent of the Union Equity Co-operative Exchange, was fatally injured in a recent accident at the plant.

Handley, Texas.—Fire destroyed the large barn, machinery and feedstuffs of the Village Creek Farm Mills on July 31, causing a loss of \$50,000.

Atlanta, Ga.—Fire, which started in the sack room, did considerable damage to the elevator of the Atlanta (Ga.) Flour & Grain Company.

Flat Rock, Ind.—Martin Nading's elevator at Flat Rock was destroyed by fire on July 14. Estimated loss is \$20,000, partly covered by insurance.

Moscow, Idaho.—Fire destroyed the grain warehouse of the Mark P. Miller Milling Company, located at Joel, about six miles east of Moscow.

Forsythe, Mont.—Fire destroyed the Aetna Grain Elevator, filled with grain, and two implement warehouses at Forsythe, causing a loss of \$20,000.

Lanesboro, Minn.—Fire, started by spontaneous combustion, destroyed the Andrew Boyum elevator on August 8. Adjoining sheds were also destroyed.

Sperling, Man.—Fire destroyed the wheat pool elevator and 35,000 bushels of grain, causing a loss of \$55,000. The house will be rebuilt immediately.

Ninnekah, Okla.—The elevator and stock of the Ninnekah (Okla.) Grain & Lumber Company, owned by W. W. Brunskill, were destroyed by fire July 4.

Wray, Colo.—The elevator of Jennings & Roller Grain Company burned July 10. The loss to the elevator, which was about empty, was covered by insurance.

Blumenhof, Sask.—Fire destroyed the pool elevator at Blumenhof on July 17. About 5,000 bushels of grain and a carload of wheat burned. Estimated loss is \$35,000.

Butler, Okla.—Fire burned the Butler (Okla.) grain elevator and 1,600 bushels of grain on July 12. Estimated loss is \$7,000. The Farmers Union operated the house.

Omaha, Neb.—The elevator of the Miller Cereal Mills was damaged by fire on July 27. About 60,000 bushels of corn were also damaged, making a total loss of about \$45,000.

Port Stanley, Ont.—The wooden grain elevator and part of the adjoining pier burned July 16. The Empire Flour Mills, which failed about two years ago, owned the elevator.

Holland, Iowa.—The Farmers Co-operative Grain Company will rebuild its elevator which burned recently. A considerable quantity of grain was destroyed, approximately 4,000 bushels. The company will continue buying grain and will rebuild at once.

Buffalo, N. Y.—Fire destroyed on July 21 the old Erie elevator, formerly owned by the Globe Elevator Company. Loss is estimated at \$45,000. The



Harlem-Kensington Corporation, developers of real estate, recently bought the elevator from Millard P. Ryley, president of the Globe Elevator Company.

Fowler, Kan.—Fire recently did considerable damage to the George Gano elevator. The blaze started in the head house but was checked before it reached the wheat bins.

Pleasant Gardens, Ind.—The Holesapple feed store was practically destroyed in a \$20,000 fire which swept the town of Pleasant Gardens, near Greencastle, on July 16.

Barto, Pa.—The grain warehouse of Newton E. Treichler was damaged considerably by a recent fire. The loss is estimated at \$30,000, which was partially covered by insurance.

Vincennes, Ind.—The elevator, scale house, and four carloads of wheat of the Knox County Farm Bureau burned July 30. The loss is estimated at \$12,000, partly covered by insurance.

Marietta, Iowa.—The elevator of Lloyd Rubenbauer, of Albion, burned together with a considerable quantity of grain. The loss which is estimated at \$5,000 is partially covered by insurance.

Milwaukee, Wis.—Two men were killed and four seriously injured on July 26 while working on the new addition to the Donahue-Stratton Company's elevator which is being erected on Jones Island.

Vincennes, Ind.—The elevator and plant of the Baltic Mills burned August 5. A considerable quantity of grain also burned. Loss is estimated at \$160,000. The plant is owned by John and Orville Stout.

Toppenish, Wash.—The storage plant of the Alfalfa Products Company was destroyed by fire which caused a loss of \$15,000. Transients sleeping in the building are thought to have been responsible for the blaze.

Mehan, Sask.—Fire destroyed the grain elevator of the N. Bawlf Grain Company, Ltd., with headquarters at Winnipeg, Man. The elevator had not been in use recently and therefore contained no grain.

Falmouth, Ind.—The grain elevator at Falmouth, managed by Hadley Clark, was destroyed by fire on July 12. Estimated loss is \$15,000, including 5,000 bushels of wheat. An overheated exhaust pipe started the blaze.

Ness City, Kan.—The new grain elevator which the D. E. Bondurant Company recently built at Ness City, Kan., was destroyed by fire together with 67,000 bushels of grain. It will be replaced with a new concrete plant.

West Jefferson, Ohio.—The West Jefferson (Ohio) Elevator Company's plant was destroyed by fire. A large quantity of grain was also burned. The loss is estimated at \$50,000. A spark from a drying kiln is thought to have started the blaze.

Reading, Pa.—H. B. Cooling, foreman of the feed mill of F. S. Wertz & Son, Inc., was fatally burned in an explosion at the plant on July 19. He was 35 years old. Five other employees were slightly burned. The explosion occurred while fumigating the plant and caused a loss of \$75,000.

## Hay, Straw and Feed

The Gibbons Grain Company has completed its new feed plant at Kearney, Neb.

The Hall Grain Company has completed a new feed building, 40 by 60 feet at New Iberia, La.

The Fleck Elevator Company, Kilduff, Iowa, has equipped its plant with a 1,000-pound feed mixer.

The Blair Elevator Corporation is increasing the capacity of its mixed feed plant at Atchison, Kan.

The Weaver Grain Company plans to install a feed grinder this fall in its plant at Riverdale, Kan.

The Berne (Ind.) Grain & Hay Company has equipped its plant with a large feed grinder and feed mixer.

R. L. Moore who operates a 30,000-bushel grain elevator at Dublin, Ga., plans to build a sweet feed plant next year.

The Math Barzen Company, flour and feed dealers, has moved its offices from Thief River Falls to Minneapolis, Minn.

R. T. French & Son, Caledonia, Mich., are installing a spout type electro-magnetic separator ahead of its feed grinder to eliminate tramp iron.

The Gooch Milling & Elevator Company has let bids through Horner & Wyatt, consulting engineers, for the building of a new feed mill unit at Lincoln, Neb.

Fred Zmolek, of Clutier, Iowa, has bought the oat hulling and feed grinding business of George Hova which is located at the Mundt elevator at Traer, Iowa.

B. B. Anderson Company's north elevator at Estherville, Iowa, has been leased by Jones & Co., feed and coal dealers, who plan to convert the

house into a feed mill which will have an hourly capacity of 300 bushels. Foundations for the machinery have been put in.

The LaFayette (N. J.) Feed & Coal Company has bought the O. P. Armstrong Company's plant which it is improving and enlarging and equipping with a new feed mixer.

John Schmidt who recently purchased a feed grinder at Dundee, Mich., from Harrison Fiske, is equipping it with an electro-magnetic separator to eliminate tramp iron fire hazard.

The Farmers Co-operative Elevator Company, Nashville, Mich., has installed a bean cleaner which has a capacity of 400 bushels an hour. A feed mixer will be added to the equipment this fall.

The Grand Blanc (Mich.) Co-operative Association has placed an order for a drum type electro-magnetic separator to place ahead of its feed grinder to eliminate metal from feed before it passes into the mill.

A molasses mixer and a batch mixer and equipment valued at \$6,000 is being installed in the plant of the Farmers Elevator & Supply Company at Morrison, Ill. An addition will be built on top of the elevator for the mixers.

The Central Feed & Produce Company at Kirkwood, Ill., has been incorporated with a capital of \$10,000 to deal in feed, lumber, hardware, etc. Incorporators are William C. Bryant, Howard W. Bryant, and Ralph J. McKessick.

The Producers Elevator Company, Williamston, Mich., is installing a feed grinder with a direct connected 60-horsepower motor. The grinder is equipped with an electro-magnetic separator for the purpose of eliminating tramp iron.

Floyd E. Lott is wiring his elevator at Cohoctah, Mich., for electric power; all wiring is in conduit. One 7½-horsepower fully-enclosed, ball-bearing, self-ventilated General Electric Motor is being installed, and later a 30-horsepower direct connected motor-driven feed mill will be installed, as well as an additional 7½-horsepower motor.

The William O. Goodrich Company, Milwaukee, Wis., which controls the Archer Daniels Midland Company, is remodeling two of its plants for the crushing and manufacturing of soy bean oil and meal. The plants are being equipped with Randolph Direct Heat Driers, which will be operated with oil burners, and will be ready to receive the 1930 crop of soy beans.

Marion Sturgis, elevator operator at Fowler, Mich., has equipped his plant with a feed grinder which has an electro-magnetic separator for removing metal from feed. This will be operated by a 50-horsepower Fairbanks Morse Oil Engine. A number of fully enclosed ball-bearing, self-ventilated electric motors are also being installed to operate other machinery in the plant, formerly driven by the engine.

The Lapeer (Mich.) Farm Bureau Supply Stores, a recently organized farmers co-operative association, has leased the Gifford elevator and will install a feed grinder, direct connected to a 50-horsepower fully-enclosed pipe-ventilated electric motor. The grinder is equipped with a built-in electro-magnetic separator for the elimination of particles of iron and steel in the feed. A five-horsepower fully-enclosed, self-ventilated electric motor is being installed to operate a sheller and crusher.

The Sterling (Mich.) Elevator Company has recently placed an order for a feed grinder, driven with a direct-connected 20-horsepower fully-enclosed, pipe-ventilated motor. It will also install a 10-horsepower motor and a five-horsepower motor of the fully-enclosed, self-ventilated type for operating auxiliary equipment. All starters are provided with low voltage and overload protection. The feed mill is equipped with a new built-in electro-magnetic separator to eliminate tramp iron from feed.

The Tri-State Co-operative Association has purchased the elevator at Montgomery, Mich., which it has equipped with new feed grinding machinery. They have a Blue Streak Feed Grinder with a built-in electro-magnetic separator, with a direct connected 30-horsepower motor. They have also installed one five-horsepower and one three-horsepower General Electric fully-enclosed, ball-bearing motors to operate auxiliary equipment. Motors are controlled by automatic starters, providing low voltage protection as well as overload protection.

## OBITUARY

AUSTIN.—Herbert E. Austin, cashier for James E. Bennett & Co., Chicago, for 12 years, died July 21. He was 36 years old. His widow and three children survive him.

BENNETT.—Walter A. Bennett, retired grain and feed broker, died recently at his home in Lakewood, Ohio. His widow and two sons survive him.

BURNER.—H. A. Burner, grain buyer and coal dealer for the Imperial Elevator Company, Blabon, N. D., committed suicide.

CATTANACH.—Charles Cattanch, superintendent for many years of James Richardson & Son, operators of terminal elevators at Port Arthur, Ont., died recently at Islay, Alta. He died from injuries received when he was thrown from a horse.

EBERHARDT.—Gerhardt Eberhardt, feed dealer at Dale, Ind., for many years, died at his home there on July 12. He was 80 years old. Four children survive him.

EDGAR.—Frank Edgar, employe of the El Reno, Okla., Mill & Elevator Company, died recently in Oklahoma City from injuries received while diving in Blue Lake.

HAKES.—Arthur Hakes, who had been in the grain business at Manson, Iowa, for 30 years, and later at Nemaha, died July 12 at his home in Nemaha. Mr. Hakes was manager of the Western Elevator Company at Manson, and later owner of an elevator which he operated with A. M. Nelson as a partner.

HANSON.—Edgar T. Hanson, connected with the grain commission business in Minneapolis, Minn., since 1898, and vice-president of Johnson, Case & Hanson Company, since 1917, died August 10. He was 54 years old.

HASTINGS.—Carlisle Hastings, general manager and secretary of the W. C. Mitchell Company, Duluth, Minn., died July 6. Mr. Hastings, who had been with the company 25 years, was 50 years old.

HEALY.—James C. Healy, well-known grain and feed dealer at Belle Center, Ohio, died at the age of 67 years.

HILL.—J. B. Hill, pioneer grain and hay dealer of California, died at Fresno, Calif., at the age of 84 years. Mr. Hill retired three years ago, since which time the J. B. Hill Company has been operated by his three sons.

HOPKINS.—E. J. Hopkins, treasurer of the N. Bawlf Grain Company, Ltd., Winnipeg, Man., was found dead in his automobile on July 8.

HOWE.—Otto O. Howe, grain buyer at Donnybrook, N. D., died July 9 at the age of 32 years. Five brothers survive him.

KELLY.—William H. Kelly, who was connected with the grain and milling business at Kansas City, Mo., for many years, died August 3.

MARTIN.—Alfred T. Martin, veteran member of the New York Produce Exchange, died recently at Wheaton, Ill. Mr. Martin was also a member of the Chicago Board of Trade and was connected for many years with Bartlett Frazier & Co.

MARSHALL.—L. D. Marshall, late manager of the National Elevator Company, a subsidiary of the Van Dusen Harrington Company, Minneapolis, Minn., died recently at the age of 83 years. He was connected with the Van Dusen Harrington interests for 30 years and retired about two years ago. His widow, a son, and a daughter survive him.

MAYNARD.—George R. Maynard, manager of the Farmers Elevator Company, Osceola, S. D., died. He was 61 years old. A sister and seven brothers survive him.

MCUTCHEEN.—Charles W. McCutchen, member of the New York Produce Exchange and a partner for many years in Holt & Co., export flour merchants, died at his summer home at Lake Placid, N. Y. He was 85 years old.

PALMERTON.—Lee Palmerton, manager of Albers Bros. Milling Company at Seattle, Wash., died. He had been with the company 15 years.

PRATT.—Riley E. Pratt, well known to the Buffalo, N. Y., grain and milling industries, and organizer of the former firm of Pratt & Co., died July 28, following an illness of three months. He was 65 years old. Three sisters survive him. (See further details in terminal markets section.)

SIGWALT.—Charles Sigwalt, veteran member of the first Chicago Board of Trade regiment of the Civil War, died July 23 at the age of 91 years.

SUYDAM.—Walter Lisenard Suydam, former New York grain broker and member of the New York Produce Exchange, died at his summer home at Blue Point, L. I., at the age of 76 years. His widow and a son survive him.

VOLMER.—Rudolph Volmer, known by his associates as the "father of the San Francisco Grain Trade," died at Fresno, Calif., on July 17 at the age of 65 years. The grain firm which operated under his name will be continued by his two sons, Rudolph, Jr., and W. W. Volmer.

WAILES.—John Shipley Wailes, connected for many years with J. B. Wailes & Sons Company, grain, hay, and feed dealers at Arlington, Md., died July 30 from injuries received in an automobile accident. His widow and two daughters, who were in the car with him, were seriously hurt.

WILLSON.—E. J. Willson, grain buyer at Hamilton, N. D., died July 12 at the age of 63 years. His widow and three children survive him.



## FIELD SEEDS

(Continued from Page 108)

age. The dealers say that there is wide variation in the quality of Alsike which is being offered in the Milwaukee market. Some of the seed is very poor, other lots are found to be of only fair quality and some of the offerings are of excellent quality.

The Alsike market has also firmed up in line with the bullish tendencies in the seed market. The advance in this line has been around \$1 to \$1.50 and the price is now quoted around \$22 to \$24 for the choice to excellent lots of seeds.

\* \* \*

Milwaukee seedsmen find that the sweet clover seed yield is rather short, what with the freezeout from the winter and the dry weather which had some adverse effects on the seed production. This will definitely cut down the yield, it is stated.

As a result of the short supply the price has already firmed up about 3 cents and it now ranges around 9 to 10 cents for the choice grades.

On the whole, this will be a season of short supply of seeds and of very high prices. It is expected that the damage from dry weather in many states will be so decisive that the total supply of available seeds may be far below that of last year, with corresponding boosts in prices.

\* \* \*

Milwaukee seed dealers say it is too early as yet to get any definite reports on Alfalfa seed. However, they contend that there have been few complaints of dry weather in the West and the Southwest where the important supplies of seed are procured. They predict that the supply of Alfalfa will be affected by the abnormal conditions and that this class of seed is also due for a rise in prices with reduced harvests and in sympathy with the rising prices of other seeds.

## BETTER SEED: BETTER WHEAT

By H. M. BAINER

Low yields, poor quality and unsatisfactory crop returns are the usual penalties for impure, smutty, and rye-mixed seed wheat. The right kind of seed may be considered as the first and most important production essential. The grower may practice the best production methods, such as early seedbed preparation, rotation of crops and conservation of soil moisture and fertility and then get a poor crop because of inferior seed. The common practice of not making provision for good seed in advance, but waiting until it is needed, then sowing whatever kind of wheat that happens to be on hand, invites crop failure.

To buy seed wheat without knowing all about it or to shovel it up at the granary and sow it without cleaning or grading is costing the farmers who practice it, from one to five bushels per acre. The fanning mill is a splendid seed wheat improver, it turns out clean, plump seed, such as will insure a good uniform stand of strong vigorous plants with no weakly ones that are likely to die later.

Pure or certified seed costs very little more than ordinary seed, but insures far better returns. Some of the worst weed seed, such as bindweed, aegilops and thistle, is often hidden in wheat. As far as the best variety of wheat for the Southwest is concerned, Turkey is the leader. This variety is the foundation of our wheat industry. To the present

time no other variety has been found that equals it. It fills the requirements from the standpoint of yield, winter hardiness, stiff straw and market demand. The Southwest is fortunate in having only three leading varieties of Hard Winter wheat, Turkey, Kanred, and Blackhull, all of which are of the Turkey type. From the standpoint of quality and market demand, these varieties stand in the order named.

## SEED FIRM PROTESTS

Pending on the docket of the Interstate Commerce Commission is the complaint of the Wertz Seed Company, Sioux City, Iowa, against the application of a 77-cent combination rate on wild mustard seed in carloads from Sioux City to Philadelphia, routed over B. & O. rails.

The rate is assailed as "unjust and unreasonable" to the extent that it exceeds a contemporaneous grain screenings rate of 28 cents as to the factor from Chicago to Philadelphia, or 50½ cents, the joint through rate on screenings. Reparation is sought.

MEADOW FESCUE SEED CROP  
SMALLEST SINCE 1921

Production of meadow fescue seed in the United States is expected to be 35 to 40 per cent smaller than that of a year ago. Drought during the spring in the main producing district of eastern Kansas was largely responsible for the smaller crop. Cold dry weather in early spring was likewise unfavorable to production in Missouri. The United States Bureau of Agricultural Economics estimates a production in Kansas and Missouri of 800,000 to 900,000 pounds of clean seed, compared with 1,400,000 in 1929, 1,300,000 in 1928 and in 1926, 2,500,000 in 1927, 1,750,000 in 1925, 2,100,000 in 1924 and 2,700,000 pounds in 1923. The production in Indiana was likewise expected to be much smaller than last year.

Acreage as well as yield per acre was smaller than last year in Kansas. Weather conditions in the fall and winter as well as in early spring were mostly unfavorable and stands were generally thinner than last year. Growers in that state expected yields to average about five bushels per acre compared with about seven last year, and six bushels two years ago.

Harvesting the crop in Kansas began on June 28 or two days earlier than a year ago. Weather conditions were generally favorable in contrast with last year and two years ago when heavy rains occurred at harvest. The quality is expected to be fairly good.

Prices to growers have not been fully established. Opening prices were mostly 5 cents per pound last year, and 10 cents two years ago. Prices in other years about July 3 were as follows: 7 cents in 1927,

10 in 1926, 7 in 1925, and 6 cents in 1923 and 1924.

Export demand during the 1929-30 season was indicated to be somewhat better than the year before. The carryover is believed to be of good size this year as well as a year ago.

The acreage in Denmark is expected to be as large or slightly larger than last year (2,225 hectares or about 5,498 acres). In 1929 the acreage was about 5 per cent greater than that of 1928, which in turn was 35 per cent greater than the acreage in 1927. Yields were larger than usual in Denmark last year and the year before. They averaged about 515 pounds per acre in 1929, compared with 535 in 1928 and a normal yield of about 450 pounds.

MOVEMENT OF SEED OATS ABOUT  
USUAL IN SOUTH

According to an August report of the seed division of the United States Department of Agriculture, movement of seed oats in the South was about the same as last year and the year before. Up to July 22, about 30 per cent had been sold by growers. Movement was most rapid in Oklahoma where about 55 per cent had been sold up to that date. In Texas about 40 per cent and in Tennessee, Georgia and the Carolinas about 25 per cent had been sold by growers.

The quality of the crop was reported as good in Alabama, Georgia and Texas and as "good to very good" in Oklahoma, Tennessee and the Carolinas.

Prices offered to growers on July 22 were only slightly changed from those of a month earlier. Growers were offered 50 cents to 75 cents per bushel in Georgia and the Carolinas and 30 cents to 40 cents in Texas and Oklahoma.

## SEED RYE MOVING FASTER

Movement of seed rye in the South was at a slightly faster rate than a year ago. Up to July 22 about 30 per cent of the crop had been sold by growers. Movement was slightly faster in South Carolina than in North Carolina or Virginia. The quality of the crop was reported as good to very good by shippers. Prices offered to growers ranged \$1 to \$1.50 per bushel in North Carolina and Virginia and \$1.25 to \$2 in South Carolina and Georgia.

KAPOC TREE OF EAST INDIES YIELDS  
VALUABLE OIL SEED

This summer, for the first time in the history of the port of Los Angeles, Calif., kapoc seed has been received. The initial shipment of 221,000 pounds of this little-known oil seed was delivered on contract from Sourabaya, Java.

Kapoc seed cake, by-product which remains after the oil is extracted, is ground into meal and used for stock feed. A new \$250,000 plant at Los

(Continued on Page 114)

## BUYERS AND SELLERS

Bag Lots or Carloads

Alfalfa, Clovers, Grasses, Field Seeds

ED. F. MANGELSDORF &amp; BRO.

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(Continued from Page 113)

Angeles has been opened to process kapoc and other oil seeds including cottonseed, flaxseed, soy beans, palm nuts, sesame poppy, perilla, peanuts, apricot kernels, peach seed, olive seed, castor beans, and copra.

Kapoc seed oil is used principally for soap stock, but in some cases is offered for cooking oil and for medicinal purposes.

In the East Indies, kapoc seed is taken from the kapoc trees which grow wild in areas where moisture is abundant. The trees' blossom develops into a pod, somewhat similar to the milkweed's pod in shape and contents. The five-inch kapoc pod, when broken, yields a fluffy down made up of sealed cells which do not absorb moisture. This down is used in life preservers, cushions, and mattresses. The seeds are easily separated from the downy fibers.

#### SEEDS NOW BOUGHT FROM MANY DIFFERENT SOURCES

There are more consumers than producers of seed. Many farmers produce enough seed to supply the needs of hundreds of other farmers. The average farmer, therefore, is more interested in knowing where to buy seed than in knowing where to sell it. The first source of supply to which he commonly looks is his neighbor or local dealer. He is more or less familiar with the character of the weeds on his neighbor's farm and usually prefers to plant homegrown seed. He knows the local dealer and feels that adjustments can be made if the seed is not satisfactory. Frequently, however, the farmer can obtain better seed at a lower cost from growers or shippers in surplus producing areas or from distant seedsmen.

In general, a heavy producing area of a particular kind of farm seed is also a heavy consuming area of that seed, and in most cases is the area in which relatively greater quantities are used than elsewhere. Many seedsmen fail to consider this fact and judge the total consumption of seed in various sections by their own sales of seed in those sections.

#### THE IMPORTANCE OF SEEDS

Seeds are perhaps of more importance to the agriculture of this country than anything else the farmer handles. Nevertheless no subject on agriculture of such relative importance has been so neglected as that of seed marketing. The farmer is vitally interested in this subject because in the cycle around which seeds go from the time they are harvested until they are planted, he is both seller and buyer, or, in other words, producer and ultimate consumer.

It has been estimated that more than 14,000,000,000 pounds of seeds, exclusive of seed potatoes, seed sugar canes, and other vegetative planting stocks are sown or planted annually in this country. Even a small improvement in the quality of seeds planted would result in larger crops at little or no additional expense or in the same production on a smaller acreage. Although soil and climatic conditions beyond the farmer's control determine to a large extent the quality of seeds, a small improvement can be accomplished by means that are more or less under his control. Better threshing and hulling, recleaning, etc., which will tend to improve the quality of seeds, will be discussed later. Better marketing methods make the seed crop more profitable and tend to recruit the ranks of the comparatively small number of farmers who make a specialty of growing field seeds. Ordinarily the specialist, whether he be a doctor who confines himself to nervous diseases, a lawyer who confines himself to certain kinds of cases in civil law, or a

farmer who each year sets aside an acreage for seed production and regards his seed crop as more than a mere side issue, is more skilled in his own particular undertaking than is the one whose interests and work are numerous and diverse.

It would not be advisable for too many farmers to engage in seed production, because the supply of seeds of most agricultural crops is usually equal to or slightly in excess of the demand. Many farmers who are raising seeds could produce something else more profitably, and much seed is produced that should never be sown, but is used.

The question has often been asked: "Why is it that every farmer does not raise and plant his own seeds and thereby save for himself the profit others usually derive in selling him seeds?" Briefly, some of the reasons are as follows: (1) His fields may be foul with noxious weeds; (2) soil, climatic, and other conditions on his farm may be unfavorable for seed production in a given year; (3) altitude, latitude, or rainfall in his locality may preclude the production of a particular kind of seed in any year; (4) he may be able to buy better seeds at a lower cost than can be produced in his locality; (5) he may find it more profitable to grow a crop for hay or forage purposes than for seed production; (6) he may not have the facilities for harvesting, cleaning, curing, or otherwise preparing his seed for planting purposes; (7) he may need seed of a crop that has not been grown by him for several years, if ever at all; and (8) he may have to replant his fields either with the same kind of seed, his supply of which may have been exhausted with the first planting, or with seed of some catch crop.

In general, farmers obtain their seed from three sources, namely, from their own farms, from other farmers, or from dealers. The percentage that is obtained from each of these three sources varies considerably with the kind of seed under question and the locality where the seed is planted.

#### CRIMSON SEED MOVING RAPIDLY

Crimson Clover seed moved rapidly from growers' hands during the four weeks ended July 22. About 75 per cent of the crop in Tennessee, where the bulk of the crop is raised, had been sold up to that date, according to information just released by the United States Bureau of Agricultural Economics. The movement last year was likewise faster than usual as 75 per cent had been sold up to a corresponding date, compared with 25 to 30 per cent in 1928 and 50 per cent in 1927.

Growers in Tennessee were offered mostly \$7.50 per 100 pounds, basis clean seed, or about the same as a month ago, compared with an average price of \$10.70 a year ago. They were offered mostly \$7 for country-run seed.

Wholesale prices in eastern markets for old-crop seed continued to decline and ranged mostly \$9.75 to \$10, compared with \$10.50 to \$11 a month ago, \$12 to \$13 a year ago and \$17 to \$18.50 two years ago. New crop seed for August delivery was offered at \$8.75 to \$9.50. Prices in European markets have been firm.

No seed was imported during July 1 to 15, this year or two years ago. During the same period last year 33,100 pounds were permitted entry.

#### SEED RATE PROTESTED

The Wertz Seed Company, Sioux City, Iowa, has filed a complaint with the Interstate Commerce Commission against the Baltimore & Ohio Railroad Company, as a protest against the levying of a 77 cent rate on shipment of wild mustard seed (carloads) from Sioux City to Philadelphia, Pa.

This rate is alleged to be unjust and unreasonable to the extent that it exceeds a contemporaneous grain screening rate of 28 cents "as to the factor from Chicago to Philadelphia, or 50½ cents—the joint through rate." Reparation is sought by the seed company.

The Minneapolis (Minn.) Seed Company is completing its modern new seed house.

The Mitchell Seed Company is building a \$50,000 addition to its plant at St. Joseph, Mo.

Work has started on the construction of a new seed and feed house at Newton, Iowa, for Harvey Dolph and Frank Guthrie.

The Thief River Falls (Minn.) Seed House has succeeded Tessum & Co., former grain dealers. The new company will handle seed, grain, and feed.

Foundation work has begun on a new building for the Bagley Better Cottonseed Company, Martindale, Texas. Charles Jenkins is in charge of construction.

J. A. Brown & Son, Inc., Grand Rapids, Mich., announce that a large steel and concrete seed cleaning plant, of daylight construction, will be erected at Home Acres.

P. A. Lauritzen has bought out his partner, L. J. Lauritzen in the seed and grain business which they have been conducting at Tekoa, Wash. A machine for the treatment of seed wheat will be installed.



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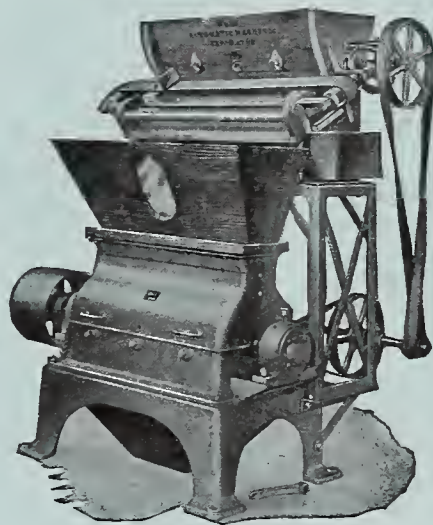
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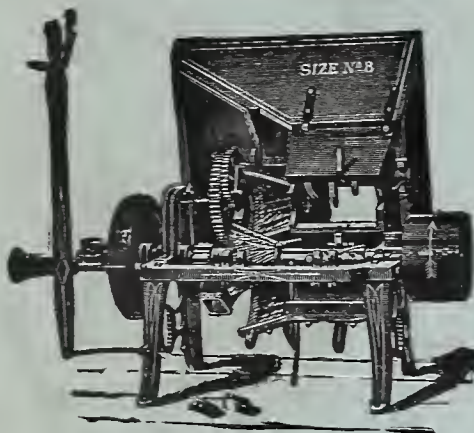
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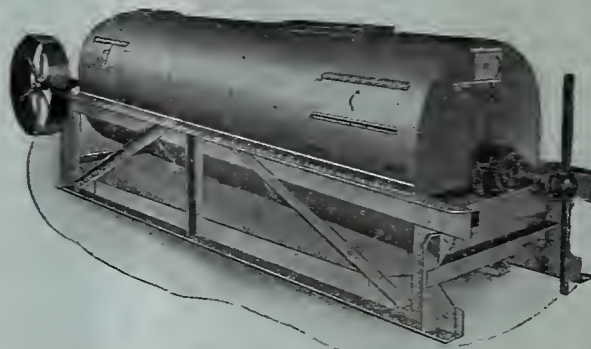
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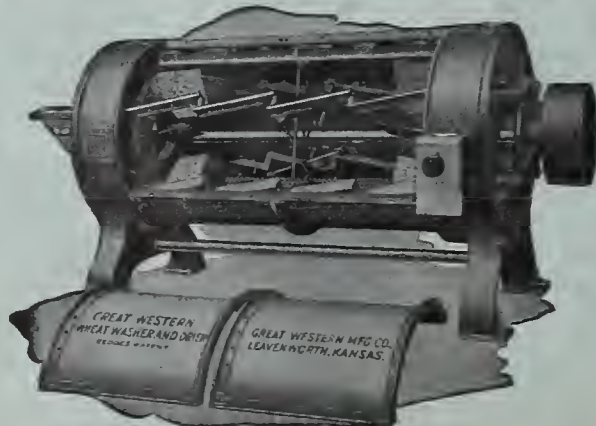
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